

121

121-1-281

122

122-1-282

123

123-1-283 Iron-constant in Flight No. 1-2-10

13



(87) P_{tP} - Engine Torque Pressure - Engine Data Sheet - Column (89)

(88) U - Engine Data Sheet - Column (7)

(92) P_{t1} - Compressor Outlet Pressure - 1-1 to 1-2

(23)

Compression

Inlet

K10-0.000186

Test-Ret

DATA

1998

[illegible]

THE

PROBING

[illegible]

Total Thrust

Scale Thrust

Test No. 165425 Date 12/1/72											
	73	74	75	76	77	78	79	80	81	82	83
Rdg No.	91	92	93	94	95	96	97	98	99	100	101
	0-0	0-0	2-0	6-0	9-0	11-0	12-0	10-0	8-0	6-0	4-0
	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
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	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177
	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188
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61

Scale Thrust = 1167 pounds Scale Sheet

ATP-12069B

Date: 11/11/2011

[illegible]

⑤ 14. m5

⑥ 12. Balance Chamber Tunnel Station

⑦ 11. Big End Temperature Gauge Tunnel Operator's Sheet

③ U_2 = Engine Data Sheet Column ⑧

④ U_5 = 150 to 161

⑤ U_7 = 1262 to 1261

⑥ T_1 = Chroma-Lume Light Recorder Nos. 3, 4-6 to 4-11

Pr510

[illegible]

(25) $P_2 = 1721$ to 1738

(26) $P_2 = 1739$ to 1751

(27) $T_2 = \text{Iron-Constantan Flight Recorder No. 1, 1-6 to 1-11}$

(11) $P_3 = 1287$

(12) $P_3 = 1281$

(23) $T_3 = \text{Iron-Constantan Flight Recorder No. 1, 2-11}$

TOP 100 PERSONS

NY 65-080084

Date: _____

[illegible]

(13) $H_1 = W190 - W215$

(14) $P_{12} = W216 - W223$

(15) $T_{12} = \text{Iron-Constantan Thermocouple 1, 1-4, 1-5, 1-6}$

(19) $H_2 = W258 - W260$

(20) $P_{25} = W259 - W261$

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Column

- ① $H_1 = m56$ to $m81$
- ② $H_2 = m82$ to $m89$
- ③ $T_1 =$ Iron-constantan flight recorder no. 1, 1-2, 1-3
- ⑦ $H_6(1) = m51, m56$
- ⑧ $P_6(1) = m55, m56$

[illegible]

ON BUT PEE!

	27	28	29	30	31	32	33	34	35	36	37	38
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48	572	573	574	575	576	577	578	579	580	581	582	583
49	584	585	586	587	588	589	590	591	592	593	594	595
50	596	597	598	599	600	601	602	603	604	605	606	607
51	608	609	610	611	612	613	614	615	616	617	618	619
52	620	621	622	623	624	625	626	627	628	629	630	631
53	632	633	634	635	636	637	638	639	640	641	642	643
54	644	645	646	647	648	649	650	651	652	653	654	655
55	656	657	658	659	660	661	662	663	664	665	666	667
56	668	669	670	671	672	673	674	675	676	677	678	679
57	680	681	682	683	684	685	686	687	688	689	690	691
58	692	693	694	695	696	697	698	699	700	701	702	703
59	704	705	706	707	708	709	710	711	712	713	714	715
60	716	717	718	719	720	721	722	723	724	725	726	727
61	728	729	730	731	732	733	734	735	736	737	738	739
62	740	741	742	743	744	745	746	747	748	749	750	751
63	752	753	754	755	756	757	758	759	760	761	762	763
64	764	765	766	767	768	769	770	771	772	773	774	775
65	776	777	778	779	780	781	782	783	784	785	786	787
66	788	789	790	791	792	793	794	795	796	797	798	799
67	800	801	802	803	804	805	806	807	808	809	810	811
68	812	813	814	815	816	817	818	819	820	821	822	823
69	824	825	826	827	828	829	830	831	832	833	834	835
70	836	837	838	839	840	841	842	843	844	845	846	847
71	848	849	850	851	852	853	854	855	856	857	858	859
72	860	861	862	863	864	865	866	867	868	869	870	871
73	872	873	874	875	876	877	878	879	880	881	882	883
74	884	885	886	887	888	889	890	891	892	893	894	895
75	896	897	898	899	900	901	902	903	904	905	906	907
76	908	909	910	911	912	913	914	915	916	917	918	919
77	920	921	922	923	924	925	926	927	928	929	930	931
78	932	933	934	935	936	937	938	939	940	941	942	943
79	944	945	946	947	948	949	950	951	952	953	954	955
80	956	957	958	959	960	961	962	963	964	965	966	967
81	968	969	970	971	972	973	974	975	976	977	978	979
82	980	981	982	983	984	985	986	987	988	989	990	991
83	992	993	994	995	996	997	998	999	1000	1001	1002	1003
84	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015
85	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027
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90	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087
91	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099
92	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111
93	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123
94	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135
95	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147
96	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159
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98	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183
99	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195
100	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207
101	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219
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103	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243
104	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255
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107	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291
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111	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339
112	1340	1341	1342	1343	1344	1345	1346					

[illegible]

Configuration

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NOTES

	100	101	102	103	104	105	106	107	108	109	110	111
Reading 110	100	101	102	103	104	105	106	107	108	109	110	111
112	112	113	114	115	116	117	118	119	120	121	122	123
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424	424	425	426	427	428	429	430	431	432	433	434	435
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448	448	449	450	451	452	453	454	455	456	457	458	459
460	460	461	462	463	464	465	466	467	468	469	470	471
472	472	473	474	475	476	477	478	479	480	481	482	4

Bureau of Census												
Conf.	112	113	114	115	116	117	118	119	120	121	122	123
Read Log No.	112	113	114	115	116	117	118	119	120	121	122	123
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FLAME HOLDER

COMBUSTION CHAMBER

D. HALL TEST TESTS

EXHAUST NOZZLE

1/5

FUEL TANK

200

DATE

9-11-46

INLET AIR TEMP

70

Reading No.	Time	Exhaust Temp	Flame Temp	Fuel Flow	1/5	1/5	Shell Water Flow	Pump Water Flow	Ball Valve Position	Flame Holder Position	Fuel Bar Press	Fuel Bar Position
1	5:03	2000	1845	3548	049		30	20			99	
2	5:06	2100	1821	3500	045		30	21			90	
3	5:10	1770	185	3628	041		30	20	1/2		4	
4	5:12	2000	1831	3150	043		31	19			88	
5	5:15	2000	181	3670	051		30	20			112	165
6	5:18	1900	163	3650	056		30	20			706	157
7	5:22	1900	168	3400	051		29	20			96	
8	5:24	1900	171	3110	046		30	19			82	
9	5:26	1900	167	2830	043		30	19			69	
10	5:27		BL	2710	039							
10	5:37	1800	155	2770	046		30	20			62	
11	5:40	1800	156	2480	041		30	19			52	
12	5:47	1800	149	3050	053		30	19			75	
13	5:53	1700	132	2200	044		30	78			45	
14	5:56	1690	132	1900	039		30	18			36	
15	6:00	1690	126	2480	052		30	18			50	
16	6:00	1690	126	2480	052		30	18			50	
17	6:00	1690	126	2480	052		30	18			50	
18	6:00	1690	126	2480	052		30	18			50	
19	6:00	1690	126	2480	052		30	18			50	
20	6:00	1690	126	2480	052		30	18			50	
21	6:00	1690	126	2480	052		30	18			50	
22	6:00	1690	126	2480	052		30	18			50	
23	6:00	1690	126	2480	052		30	18			50	
24	6:00	1690	126	2480	052		30	18			50	
25	6:00	1690	126	2480	052		30	18			50	
26	6:00	1690	126	2480	052		30	18			50	
27	6:00	1690	126	2480	052		30	18			50	
28	6:00	1690	126	2480	052		30	18			50	
29	6:00	1690	126	2480	052		30	18			50	
30	6:00	1690	126	2480	052		30	18			50	
31	6:00	1690	126	2480	052		30	18			50	
32	6:00	1690	126	2480	052		30	18			50	
33	6:00	1690	126	2480	052		30	18			50	
34	6:00	1690	126	2480	052		30	18			50	
35	6:00	1690	126	2480	052		30	18			50	
36	6:00	1690	126	2480	052		30	18			50	
37	6:00	1690	126	2480	052		30	18			50	
38	6:00	1690	126	2480	052		30	18			50	
39	6:00	1690	126	2480	052		30	18			50	
40	6:00	1690	126	2480	052		30	18			50	
41	6:00	1690	126	2480	052		30	18			50	
42	6:00	1690	126	2480	052		30	18			50	
43	6:00	1690	126	2480	052		30	18			50	
44	6:00	1690	126	2480	052		30	18			50	
45	6:00	1690	126	2480	052		30	18			50	
46	6:00	1690	126	2480	052		30	18			50	
47	6:00	1690	126	2480	052		30	18			50	
48	6:00	1690	126	2480	052		30	18			50	
49	6:00	1690	126	2480	052		30	18			50	
50	6:00	1690	126	2480	052		30	18			50	

Chance Scale Data

1972年12月15日

● 中国书画函授大学肇庆分校

[illegible]

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54011
54712
55313
55414
56015

NOTE: 2017 POST-ELECTION

Square foot rate

Burning data on fire

[illegible]

DATA

Rd
No

1990

C: 8012 (Rev. 10-2-80)

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Test No.			Date									
	61	62	63	64	65							
Pile C-1	Hg P/S	WEC Hg P/S	Hg P/S	Top Rm H P/S	Top Rm Brd Y/S							

[illegible]

C-801 (REVISED 2-3-49)

Observer

[illegible]

Test No.

035

Control

	157	158	159	160	161	162	163	164	165	166	167	168
	Δf_1	Δf_2	Δf_3	Δf_4	T_1	T_2	T_3	T_4	T_5	T_6	T_7	T_8
Ref	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$	$\frac{1}{100}$
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Test No.	Date
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Test No.	Date	Ab 1993 9/11
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10-6

[illegible]

Julius Rosenberg Et Al.

Referral

National

Aeronautics

And Space

Administration

No. 13

REFERRAL DOCUMENT JUSTIFICATION

Agency NASA
Packet No. 13

Rosenberg Et Al.

HQ or Field Ofc.	File No.	Serial No.	Date of Serial	DELETIONS (S)
HQ	65-59312	742	9/29/52	This document has been classified by Executive Order 11652 on 3/15/78 and it bears the Classification Officer's number 4913.

1 to:
 Mr. Miles Waggoner
 Freedom of Information Officer
 National Aeronautics and Space Administration
 Washington, D.C. 20546

REFERRAL

Reviewed by: Amf 1952

AGENCY National Aeronautics and Space Administration

Packet: 13

Subject and File Number	Serial	Date	Document Description	No. of Pages Actual Released	
FL(HQ)65-59312	731	9/2/52	LA report to HQ	8	8
" " " "	731	9/2/52	Copy of a coversheet to above report	1	1
" " " "	739	10/6/52	W.F.O. Letter to HQ	2	2
" " " "	740	10/9/52	National Advisory Committee For Aeronautics Letter to Dept of Justice	1	1
" " " "	742	9/29/52	National Advisory Committee For Aeronautics Letter to Dept of Justice	2	0
" " " "	743	10/7/52	Internal Memo	2	2
" " " "	748	11/10/52	Civ. report to HQ	7	7
" " " "	748	11/10/52	Civ. report to HQ (copy)	6	6
FL(HQ)65-59312	749	11/28/52	National Advisory Committee For Aeronautics Letter to Dept of Justice	1	1
" " " "	NR	10/8/52	HQ Letter to Legat	2	2

FEDERAL BUREAU OF INVESTIGATION

FROM NO. 1
CASE ORIGINATED AT

NEW YORK

FILE NO.

REPORT MADE AT LOS ANGELES	DATE WHEN MADE 9/2/52	PERIOD FOR WHICH MADE 8/18/52	REPORT MADE BY JOHN P. ANDREWS gth
TITLE WILLIAM PERL, was.			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

*REVILL OSI DIST
G. RECD. 10-2-52
EPT. FORM 11-15-52
NY 11-1-52
Col. E. Jacobs
ICC KAS (acquaintance)
ONE
NACA
Rue
10/1/52*

EASTMAN N. JACOBS and CELIA JACOBS, Solromar, California, interviewed on August 18, 1952 regarding acquaintance with WILLIAM PERL at NACA from 1939 to 1944. Recall no specific effort by PERL to secure restricted information. EASTMAN JACOBS furnished highly confidential information verbally to "whoever might need it" including possibly PERL. No recollection that PERL participated in Ram Jet Conference in November, 1944, although he probably attended. PERL was acquainted with MARTIN HIRSHFELD, employee of NACA, Cleveland, whose wife NELLIE was a self-admitted member of the Communist Party according to CELIA JACOBS.

APPROPRIATE AGENCIES AND FIELD OFFICES ADVISED BY SLIP(S) OF CONFIDENTIALITY

RUC - DECLASSIFIED BY **5886**
ON **3/15/78**

DETAILS:

EASTMAN N. JACOBS, Post Office Box 27, Solromar, California (self-employed as owner of the East-West Engineering Company at the same address), was interviewed at his laboratory on August 18, 1952 by Special Agent PAUL LUTHER and the writer concerning WILLIAM PERL. After first explaining that his knowledge of PERL had generally been obtained through his common-law wife CELIA JACOBS (formerly Mrs. CELIA GREENBERG, nee EPSTEIN) who knew him socially, JACOBS became visibly nervous and insisted that CELIA JACOBS be present during the interview. He felt that both would be better able to recall matters of interest and be of assistance than he could alone. In accordance therewith, both were thereafter present during this interview.

JACOBS advised that he had been connected with the National Advisory Committee on Aeronautics (hereinafter referred to as NACA)

REVIEWED AND FORWARDED <i>CH Carson</i> SPECIAL AGENT IN CHARGE	DO NOT WRITE IN THESE SPACES <div style="font-size: 1.5em; font-weight: bold;">65-59312-731</div> <div style="text-align: center;"> OCT 7 1952 <i>21</i> <i>EX 32</i> </div>
COPIES OF THIS REPORT 5 - Bureau (65-59312) (Reg.) 4 - New York (65-15387) (Reg.) 2 - Cleveland (65-2730) (Reg.) 1 - Pittsburgh (Info) (Reg.) 1 - Los Angeles (65-5075)	

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8 Oct 22 1952

from 1924 to early 1945 at which time he resigned. He had been engaged at Langley Field until early 1944 and thereafter was assigned to NACA at Cleveland. During his work at Langley Field, he knew PERL while employed there (1935-1943) only slightly from hearsay as simply another employee. He did not work with him closely and was not acquainted with him socially. CELIA GREENBERG was then his own secretary and he was aware of his presence through her. PERL then was engaged in the Full Scale Tunnel under ABE SILVERSTEIN whose superior was SMITH J. DeFRANCE now at Ames Aeronautical Laboratory of NACA at Moffett Air Field, Sunnyvale, California. He himself was engaged as a group head in the Experimental Dynamics Division and served on an Efficiency Rating Board. He recalls being at a loss to rate PERL knowing so little about him.

The only acquaintance of PERL's whom CELIA JACOBS could recall, through the prompting of EASTMAN, was DORIS GARDEN who later, according to EASTMAN, married ROBERT JONES of NACA and also at Ames Aeronautical Laboratory. JACOBS indicated that he himself had engaged in highly important research at NACA and had personally designed certain airfoils which were far superior to any previously designed and which were thereafter used very successfully on all aircraft. During the summer of 1943 he had been assigned by NACA to the Office of Scientific Research and Development at London, England. He went there to secure much needed Ram Jet information. He indicated that such information is only obtained from other countries on a "horse trade" basis in which he apparently indulged. He added that he was very successful and returned with "very hot" information obtained directly from various research scientists and which was not yet in published form or yet placed on a restricted list.

During early 1944 JACOBS stated that he was assigned to NACA, Cleveland, although he was sent to various NACA facilities wherever he was needed. Dr. LEWIS, director of the laboratory, then made him chairman of the Ram Jet Committee to work on the German V-1 and V-2 rockets. Monthly meetings were held by this committee and were generally attended by interested division heads or their assistants and included GEORGE W. LEWIS (deceased), CARLTON KEMPER, RAYMOND SHARP, ABE SILVERSTEIN, BEN PINKEL, EDISON ROTHROCK, and OSCAR SHAY.

JACOBS stated that he cannot recall that PERL was in attendance at these meetings. It is quite possible, however, that he may have attended on one or various occasions as SILVERSTEIN's representative. At these meetings JACOBS and others talked very freely about all phases of their work. JACOBS

also passed on to them highly restricted information which was so "hot", he explained, that he maintained it in his own personal brief case at all times. JACOBS also explained that in order to "cut corners" in regulations and get things done, the information obtained from him as a result of his work in London was passed on by him verbally to "whoever might need it." The responsibility rested upon him to determine who might or might not be entitled to such information. In this regard, he has no clear recollection that he ever furnished PERL any restricted information that he was not entitled to, but admits that this might logically have been possible. At any rate, he claims that he never knowingly furnished any restricted information to anyone who was not entitled to it or needed it in his judgment.

As to the specific Ram Jet Conference meeting held in November, 1944, JACOBS is unable to recall specifically whether or not PERL was in attendance, but believes that he probably was there (PERL was employed by NACA, Langley Field, 1939-1943; NACA, Cleveland, 1944-1945; also June, 1948 to September, 1950). JACOBS stated, however, that he believes that the minutes of these meetings were kept by OSCAR SHAY above or at least that he would be able to suggest where they are retained.

In the meanwhile during early 1944 CELIA JACOBS stated that she had come to Cleveland from Langley Field. After a few days in which she was allowed to select what division she would like to work in during which she talked to ABE SILVERSTEIN, she decided to join the Theoretical Analysis Group in which PERL also worked. She claimed, however, that she chose this group only because it was the only one in which she felt she might have an interest because of her mathematics. This group was headed by SAM KATZOFF whose superior was ABE SILVERSTEIN above.

CELIA JACOBS stated that she resigned from NACA, Cleveland, after some six months and went to New York City where she otherwise worked for a period of time. EASTMAN JACOBS at this point interjected that she resigned because of "difficulty" with her superiors.

CELIA JACOBS admitted that she knew PERL socially during her brief stay in Cleveland and that she had had a date with him on one occasion when he had wanted to go to a "Jewish" restaurant, which they did. She claims she did not give him any restricted information or documents to which he was not entitled. EASTMAN JACOBS here commented that she was probably unqualified to

judge as to whether or not he was entitled to various documents. CELIA JACOBS claimed, however, that she cannot recall that PERL especially made a point of seeking information from her or quizzing her about secret research work which EASTMAN JACOBS was then performing or had performed in the past.

It was observed that EASTMAN JACOBS remarked several times during the course of this interview that CELIA had somehow got herself involved in a "liberal" group at Langley Field and possibly at Cleveland in which he apparently disapproved. She protested mildly to such a characterization of her associates and indicated her interest was rather in union activities in which her superiors and the management of NACA objected.

It was further observed that EASTMAN JACOBS appeared to be anxious to elicit as complete information as possible from CELIA and prompted her along in this endeavor. He claimed that he was most anxious that the PERL investigation be brought to a complete and early solution since the public information in the press that PERL had secured Jet Information from a scientist in Cleveland definitely threw a cloud over his current status. He lamented for his own present denial of access to the Naval Air Missile Test Center, Point Mugu, California, for whom he has in the past completed several Navy contracts for items used at this installation.

JACOBS stated further that both he and CELIA had given considerable thought to the PERL matter recently and have arrived at the conclusion that PERL never solicited them for unauthorized information. They recall, however, one incident regarding another NACA employee which appeared suspicious. It was their recollection that an engineer named "HY" GALVIN (probably for HYMAN according to JACOBS) had tried to get his own girl friend known only as "HELEN" to be JACOBS' secretary in order to type up the material brought back by him from London. He had formerly also been employed at NACA, Langley Field. "HELEN" was not hired and the material was never typed up. No other details about GALVIN are known.

JACOBS stated that in 1947 he was commissioned by the Research and Development Board, U. S. Air Force, to prepare a paper on recent developments. During the course of such preparation, he had occasion to contact ARTHUR KANTROWITZ at Cornell University who had been a former associate of his who there disclosed that PERL was also engaged in some research and spoke to him briefly. He has had no further contact with PERL since that time.

At the conclusion of this interview and upon the suggestion of the desirability of complete cooperation by CELIA JACOBS in a full disclosure of all known information regarding PERL and the additional prompting by EASTMAN JACOBS, CELIA most reluctantly named another social acquaintance of WILLIAM PERL. She identified him as MARTIN HIRSHFELD, an employee of NACA, whose wife NELLIE HIRSHFELD (nee SHAPPER) was a Communist Party member by her own confession. CELIA furnished above names in her own handwriting and declared at the same time that she was prepared to stand by this disclosure. She explained that sometime during 1944 she was at the HIRSHFELD home at which time NELLIE HIRSHFELD admitted to her that she was a member of the Communist Party in Cleveland and for some two hours attempted to induce her also to become a member. NELLIE's maiden name had been SHAPPER and she formerly worked in Washington, D. C. as a secretary in an unknown branch of Government service. The whereabouts of the HIRSHFELDS is unknown to the JACOBS now. CELIA JACOBS did not know whether or not MARTIN HIRSHFELD was also a Communist Party member. She stated that WILLIAM PERL had undoubtedly visited the HIRSHFELD residence, but that he had never been there while she also was there. EASTMAN JACOBS admitted that he also had visited the HIRSHFELD residence socially on one occasion.

CELIA JACOBS denied that she herself had ever been a member of the Communist Party.

It was the opinion of EASTMAN JACOBS that additional information concerning PERL undoubtedly could be secured from the HIRSHFELDS.

It is the opinion of the interviewing agents that a complete disclosure regarding PERL may not yet have been made by CELIA JACOBS. She generally refused to volunteer information stating that she would on the other hand be willing to answer specific questions. She was unconvinced that even a known member of the Communist Party should be disclosed to the Federal Bureau of Investigation. She also inferred that a failure to prosecute PERL even to this date reflected a lack of evidence on the part of the Government.

As to the identity of EASTMAN JACOBS, the records of NACA, Cleveland, Ohio, reflect that JACOBS was born at Greeley, Colorado, on July 19, 1902, the son of JOHN T. JACOBS. He attended Teachers College High School at Greeley from 1917 to 1921. He matriculated at the University of California, Berkeley, California, in 1921 and was awarded a degree of Bachelor of Science in Engineering in 1924. He was employed by the Pacific Telephone and Telegraph Company, San

Francisco, from January, 1942 to February, 1924. He was engineer on duty with NACA at Langley Field, Virginia, as a junior aeronautical engineer on February 7, 1925 and resigned effective March 15, 1945. He was divorced during September, 1933 apparently in Virginia and again married on June 2, 1934. His listed residences include Clinton Apartments, 33rd and West, Newport News, Virginia, and 3309 West 97th Street, Cleveland, Ohio (1944).

During his tenure with NACA, JACOBS was a member of the Committee on Aeronautics as well as a top figure in general NACA research and served as chairman of the Ram Jet Committee at Cleveland during 1944. JACOBS had traveled to Europe during September and October, 1935 on a combined pleasure trip and was assigned to the Office of Scientific Research and Development at London, England by NACA during the summer of 1943.

He was awarded the Wrights Brothers Memorial Medal by the Society of Automotive Engineers in 1933 and the Sylvanus Reed Award by the Fellows of the Institute of the Aeronautical Sciences in 1937.

By letter dated April 18, 1944 he was transferred to the NACA, Cleveland and became chairman of the Ram Jet Committee shortly thereafter. Upon resignation, he moved to Roosevelt Highway and Yerba Buena Road, Solromar, California.

- RUC -

ADMINISTRATIVE PAGE

Additional information regarding EASTMAN JACOBS as reflected in NACA records and reported by Cleveland letter to the Bureau dated 7/2/52 is as follows:

"An anonymous source advised that in JACOBS' file there appeared a sealed envelope bearing the holographic words 'Abe - 6-10-52' on the envelope flap (probably ABE SILVERSTEIN, Chief of Research). This envelope contained notes indicating JACOBS lived with CELIA GREENBERG at 1485 West 114th Street; that numerous copies of Political Action and New Masses as well as pro-Soviet books were in the apartment they occupied; that notes of E. J. MANGANIELLO dated December 27, 1943 on 'Power Plant Installations' were in this apartment; that a note was located indicating one LEON MADANSKY 943 Greenwood, Ann Arbor, Michigan, visited CELIA GREENBERG on January 22, 1944 and that CELIA GREENBERG had directed a telegram to one MARTIN HIRSHFELD, East Cleveland, which stated: 'Report came back. There is no such number.' These notes appeared to have been the result of a conversation with MRS. U. J. KETHAN and an unidentified NACA employee."

One copy of this report is being submitted to the Pittsburgh Office for information purposes because of its possible interest in connection with the case of HERMAN T. EPSTEIN, Pittsburgh file #100-10294.

LEADSCLEVELAND OFFICE

At Cleveland, Ohio: Will search office indices regarding available information concerning MARTIN and NELLIE HIRSHFELD.

Will, unless already obtained, review NACA records for background information regarding MARTIN HIRSHFELD.

Will contact NACA and attempt to identify "HY" GALVIN. Will furnish available information regarding GALVIN as reflected in office records.

LA 65-5075

NEW YORK OFFICE

At New York, New York: Will, upon completion of the above, consider the advisability of requesting Bureau authorization for the interview of MARTIN HIRSHFELD and/or NELLIE HIRSHFELD concerning their knowledge of the activities of WILLIAM PERL.

REFERENCE: Bureau letter to Los Angeles dated 7/14/52.

FEDERAL BUREAU OF INVESTIGATION

Form No. 1

THIS CASE ORIGINATED AT **NEW YORK**

FILE NO.

REPORT MADE AT LOS ANGELES	DATE WHEN MADE 9/2/52	PERIOD FOR WHICH MADE 8/18/52	REPORT MADE BY JOHN P. ANDREWS
TITLE WILLIAM PERL, wa.			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

EASTMAN N. JACOBS and CELIA JACOBS, Solromar, California, interviewed on August 18, 1952 regarding acquaintance with WILLIAM PERL at NACA from 1939 to 1944. Aware no specific effort by PERL to secure restricted information. EASTMAN JACOBS furnished highly confidential information verbally to "whoever might need it" including possibly PERL. No recollection that PERL participated in Ram Jet Conference in 1944, although he probably attended. PERL was acquainted with MARTIN HIRSHFELD, employee of NACA, Cleveland, whose wife NELLIE was and is admitted member of the Communist Party according to CELIA JACOBS.

APPROPRIATE AGENCIES AND FIELD OFFICES ADVISED BY SLIP(S) OF RECLASSIFICATION

DECLASSIFIED BY **5886**

RUC -

ON **3/5/78**

DETAILS:

EASTMAN N. JACOBS, Post Office Box 27, Solromar, California (self-employed as owner of the East-West Engineering Company at the same address), was interviewed at his laboratory on August 18, 1952 by Special Agent PAUL LUTHER and the writer concerning WILLIAM PERL. After first explaining that his knowledge of PERL had generally been obtained through his common-law wife CELIA JACOBS (formerly Mrs. CELIA GREENBERG, nee EPSTEIN) who knew him socially, JACOBS became visibly nervous and insisted that CELIA JACOBS be present during the interview. He felt that both would be better able to recall matters of interest and be of assistance than he could alone. In accordance therewith, both were present during this interview.

JACOBS advised that he had been connected with the National Advisory Committee on Aeronautics (hereinafter referred to as NACA).

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SPECIAL AGENT IN CHARGE

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- 1 - Pittsburgh (Info) (Reg.)
- 2 - Los Angeles (65-5075)

65-59312-73 INDEXED-89

SEP 8 1952

RECORDED-39

EX-32

63 SEP 24 1952

SECRET

TO : DIRECTOR, FBI (65-59312)

DATE October 6, 1952

306

FROM : SAC, WFO (65-5543)

SUBJECT: WILLIAM PERL, wa.,
ESPIONAGE - R
PERJURY

DECLASSIFIED BY 5886

ON 3/15/72

Re report SA HOLLIS W. BOWERS dated October 6, 1952, at
Washington, D. C.

Referenced report sets forth in detail the original Allied Physics Laboratory, Johns Hopkins University, distribution list of "Nuclear Powered Flight" (RUARK Report) and results of WFO indices searches concerning the recipients of said report. This has been done with the viewpoint that the office of origin and the Bureau may at a later date desire to conduct a more extensive investigation concerning the RUARK Report. WFO has not undertaken to set out extensive leads based on the widespread distribution of the RUARK Report in view of the fact that the Bureau letter dated February 25, 1952, page 3, pointed out that Mr. ROBERT L. BELL, Security Officer, NACA, made available to the Bureau a memorandum dated November 15, 1951, which memorandum indicates that according to Mr. R. F. SELBY and Mr. CARLTON KEMPER, both executives at the NACA Laboratory, subject PERL could have had access to the RUARK Report information in their laboratory inasmuch as it was classified as "Confidential" rather than as "Secret". Further, according to Mr. KEMPER's opinion a document of this nature would undoubtedly have been discussed with subject PERL in view of his activities in that laboratory during this period.

According to Mr. BELL there was no permanent chargeout record maintained in the Cleveland NACA Laboratory with respect to these copies of the RUARK Report and it was not possible to definitely determine whether PERL had ever charged out a copy of the report.

It is not believed that an extended investigation (which would be necessary in view of the widespread distribution of the report) is warranted in view of the fact that the "RUARK Report" is only one of the possibilities for the basis of PERL's information concerning MEPA (Nuclear Energy for Propulsion of Aircraft) which he furnished to JULIUS ROSENBERG.

LHB/lmd

1-CC-NEW YORK (65-15387) — REGISTERED
1-CC-BALTIMORE
1-CC-CLEVELAND (65-2740)
1-CC-LOS ANGELES (65-5075)
1-CC-SAN FRANCISCO

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65-59312-739

APPROPRIATE AGENCIES
AND FIELD OFFICES
ADVISED BY ROUTING
SLIP

3/12/72
3/12/72

Letter to Director
Re: WILLIAM PERL, wa.,

Although the two reasons set forth above are in contradiction either would appear to justify not conducting an extensive investigation at this point.

The extended period set forth in referenced report was caused by the inability of Mr. ARTHUR NORMIS, Reports Office, APL, to furnish the original distribution of the RUANE Report in view of orders he received from R. E. GIBSON, Director, APL, who did not want the list of distribution made available until the APL had made an extensive investigation concerning its own records with respect to the missing copy number 44. The reluctance of Dr. GIBSON to furnish the list has been the subject of previous communications from WFO to the Bureau in this matter.

A copy of referenced report was not designated for the United States Attorney in New York in view of the fact that it was not believed to contain any material of an evidentiary value.

VICE ADM. JOHN H. CASADY, U.S.N.
MAJ. GEN. LAURENCE C. CRAIG, U.S.A.P.
ADM. THOMAS W. S. LAVIS
JAMES M. DOOLITTLE, SE. D.
RONALD W. MAZDA, S. S.
WILLIAM LITTLEWOOD, S. S.
MAJ. DONALD
MAJ. GEN. DONALD L. PATT, U.S.A.P.
ARTHUR E. RAYMOND, SE. D.
FRANCIS W. RICHMOND, SE. D.
WALTER C. ...
THEODORE ...

NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS
1204 F STREET, NORTHWEST
WASHINGTON 25, D. C.

LANGLEY AERONAUTICAL LABORATORY
LANGLEY FIELD, VA.

AMES AERONAUTICAL LABORATORY
MORTFLET FIELD, CALIF.

LEWIS FLIGHT PROPULSION LABORATORY
2100 SPRINGFIELD ROAD, CLEVELAND 15, OHIO

October 9, 1952

TELEPHONE: LEB 5-6788

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: William Perl
Espionage - R
Perjury
Your file 65-59312

Dear Sir:

Reference is made to your letter of October 8, 1952,
in the above-captioned case.

Mr. Abbott expects to be in Europe the third week in
December of this year in connection with a meeting of the
Advisory Group for Aeronautical Research and Development,
North Atlantic Treaty Organization. Because the dates for
the meeting of this group have not, as yet, been fixed
more specifically, the date Mr. Abbott will arrive in
London is still a bit uncertain. In all probability, how-
ever, he will arrive in London during the approximate
period of December 12 to 19, 1952.

If the arrangements for the interview are perfected,
it is our intention to suggest to your representative that
certain documents be exhibited to the informant and that
certain questions be asked, all designed primarily to test
his credibility and the reliability of the information he
has previously supplied.

It is my hope that, following such an interview, the
NACA will be in a better position to assist you in evalu-
ating the information.

Very truly yours,

Robert I. Bell
Security Officer

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. D. M. Ladd

~~SECRET~~

DATE: October 7, 1952

FROM : Mr. A. H. Belmont

SUBJECT:

WILLIAM PERL

ESPIONAGE - R

PERJURY (Bufile 65-59312) - (u)

Mr. Tolson _____
Mr. Ladd _____
Mr. Nichols _____
Mr. Belmont _____
Mr. Clegg _____
Mr. Glavin _____
Mr. Harbo _____
Mr. Rosen _____
Mr. Tracy _____
Mr. Egan _____
Mr. Gurnea _____
Mr. Hendon _____
Mr. Jones _____
Mr. Mumford _____
Mr. Quinn Tamm _____
Mr. Nease _____
Miss Gandy _____

Purpose:

[REDACTED] (S)

[REDACTED] (S)

[REDACTED] (S)

Letters to NACA and to the Legal Attache, London, are attached for (u) your approval.

Classified by 5886 3/15/78
Exempt from GDS, Category 1
Date of declassification Indefinite

Details:

[REDACTED] (S)

[REDACTED] (S)

Attachment

APL:ccm

RECORDED

65-59312-743

B2

SECRET

[REDACTED]

(S)
B1

[REDACTED]

(S)

B1

By letter dated August 18, 1952, we advised NACA concerning (U)
the above.

[REDACTED]

(S)

A check has been made of Bureau files relative to Abbott. (U)
He was investigated in 1947 as an AEC Applicant, at which time no
derogatory information was developed. (116-5598)

Recommendation:

[REDACTED]

(S)
B1

~~SECRET~~

FEDERAL BUREAU OF INVESTIGATION

FORM NO. 1
THIS CASE ORIGINATED AT

NEW YORK

FILE NO.

REPORT MADE AT CLEVELAND	DATE WHEN MADE 11/10/52	PERIOD FOR WHICH MADE 9/12; 10/8, 27; 11/3/52	REPORT MADE BY JOHN B. O'DONOGHUE
TITLE WILLIAM PERL, aka			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

CELIA JACOBS, former NACA employee, has described MARTIN and NELLIE HIRSHFELD, also former NACA employees, as social acquaintances of subject and stated NELLIE HIRSHFELD is a confessed member of CP. CELIA JACOBS and EASTMAN JACOBS also recall viewing one "HY" GALVIN, a NACA employee, with suspicion. MARTIN HIRSHFELD born 4/3/15, New York City; attended N.Y. City Schools; graduated from CCNY 1936; attended Johns Hopkins and Geo. Washington University; employed U.S. Dept. of Agriculture 1937-40 and NACA 1940-47. NELLIE HIRSHFELD, wife of MARTIN, former Agriculture Dept. employee and known member of CP in Cleveland, 1943-45. HIRSHFELDS now reside Baltimore, Md. No record "HY" GALVIN, NACA; one HERMAN GALVIN, DOB 12/2/12, N.Y. City, attended Cleveland Schools and Ohio State University, employed U.S. Patent Office, 1938-39 and NACA 1939-51. Last known residence Cleveland, O. No record Cv. indices. T-1 states EASTMAN JACOBS claims knowledge CP members at NACA, Cleveland, during JACOBS tenure NACA, Cleveland.

- P -

APPROPRIATE AGENCIES
AND FIELD OFFICES
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DATE 3/24/78 BY SP5/200

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NOV 13 1952

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53 DEC 2 - 1952

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Details:

CELIA JACOBS, a former employee of the National Advisory Committee for Aeronautics, when interviewed on August 18, 1952, advised that the subject was acquainted socially and professionally with one MARTIN HIRSCHFELD, former employee of NACA, Cleveland, and HIRSCHFELD's wife, FELLIE, who, according to CELIA JACOBS, admitted she was a member of the Communist Party during 1944.

CELIA JACOBS and EASTMAN JACOBS also stated that they had known a NACA employee named "HARRY" GALVIN who had attempted on one occasion to secure the services of his own girlfriend to type up material brought by EASTMAN JACOBS from London for NACA. According to the JACOBS, this was a most unusual incident and caused them to view GALVIN with suspicion.

A. BERTON BRACY, Security Officer, NACA, Cleveland, furnished the following information concerning MARTIN HIRSCHFELD:

NACA

Date of Birth: April 3, 1915, Brooklyn, New York

Education: College of the City of New York - 2/32 to 3/34, B.S.
Johns Hopkins, Baltimore, Maryland - 8/36 to 6/37
George Washington University, Washington, D. C. - 2/38 to 1/40
High School - Talmudical Academy, New York City

Employment: Department of Agriculture, Beltsville, Maryland - 6/37 to 5/40
NACA, Langley Field, Virginia - 3/4/40 to 11/30/42
NACA, Cleveland, Ohio - 12/1/42 to 8/13/47

Residences: 31 E 10th Street, Brooklyn, New York
101 West Queen Street, Hampton, Virginia - 1940-42
6391 West Ardmore Road, Cleveland, Ohio, 1942-
2716 Schrwald Avenue, Cleveland, Ohio 1946
Alhambra Apartments, 3-4, Baltimore, Maryland - 1946

Known Relatives:

MARY L. WERSHFIELD, Father
131 Hopper Street, Brooklyn, New York
SOLOMON WERSHFIELD, Brother
785 East 5th Street, Brooklyn, New York
HELEN STAFFER WERSHFIELD, Wife
ALLEN CHARLES WERSHFIELD, Son (Age 8 years,
born February 11, 1944)

WERSHFIELD, during his tenure at NACA, Cleveland, was employed in the Combustion Branch and during 1945-46 his superiors were: C. D. MILLER, R. L. SELBY, and SIDNEY SHONK. He was placed on a leave without pay status on December 10, 1946, to pursue studies seeking the degree of Doctor of Philosophy and resigned August 13, 1947. Nothing derogatory was noted in NACA files.

The files of the Cleveland Office reflect that HELEN WERSHFIELD, according to T-1, of known reliability, was vice president of Local 237, Federal Workers Local, UOPWA, Cleveland, Ohio. According to this same informant, one ROBERT PESNICK of NACA was the Cleveland Industrial Union Council representative from this same local, and according to T-2, of known reliability, PESNICK was a member of the Ward 19 Club of the Communist Party. PESNICK has previously been identified as an associate of WILLIAM PERL.

T-3, of known reliability, advised that the operator of an automobile registered to HAZEL WERSHFIELD, 1406 Beekmantown Avenue, Cleveland, was observed to attend a Communist Party sponsored picnic held at 14300 Turney Road, Garfield Heights, Ohio, and which was advertised as the "12th Annual Cleveland Labor Picnic," on July 1, 1943.

HELEN STAFFER WERSHFIELD, also known as Mrs. MARY L. WERSHFIELD, was investigated by the FBI during 1942 under the provisions of the Hatch Act when she was employed by the Bureau of Entomology and Plant Quarantine, Norfolk, Virginia. In accordance with Congressional authority and investigative practice, HELEN STAFFER WERSHFIELD was requested to appear at the Norfolk, Virginia FBI Office for an interview. Although she appeared on March 27, 1942, Mrs. WERSHFIELD refused to be placed under oath and the interview was, therefore, not conducted. Mrs. WERSHFIELD was born on August 4, 1911, at Boston, Massachusetts, and resigned from the

Department of Agriculture on March 31, 1942.

Confidential Informants T-2 and T-4, of known reliability, advised that BELLIE HIRSHELD was Secretary of the Ohio Joint Anti Fascist Refugee Committee during 1943.

The Joint Anti Fascist Refugee Committee has been declared to be within the purview of Executive Order 9835 by the Attorney General.

Confidential Informants T-2, T-4, and T-5, of known reliability, have advised they knew BELLIE HIRSHELD to be a Communist Party member in Cleveland, Ohio, during the period 1943 through 1945.

According to H. PURDON BRACY, the HIRSHELDs now reside at Baltimore, Maryland, and it is his understanding that MARTIN HIRSHELD is in some way associated with Johns Hopkins University.

Mr. BRACY advised he could locate no record for a "HY" GALVIN having been employed by MAC in Cleveland; however, he did note that one EDWARD E. GALVIN, who was born December 2, 1912, at New York City, the son of A. GALVIN, was employed by MAC from December 1, 1939, until he resigned on September 7, 1951, to enter private industry. According to BRACY, GALVIN attended Patrick Henry School from February of 1925 to June of 1927; Glenville High School from September of 1927 to February of 1930; Case Institute of Technology from February of 1930 to June of 1931; Cleveland College from September of 1932 to June of 1933; all of the above being in Cleveland, Ohio, and attended Ohio State University, Columbus, Ohio, from October of 1933 to June of 1937, being awarded the degree of Bachelor of Arts and Master of Sciences. He again attended Case Institute from September of 1937 to February of 1938.

GALVIN was previously employed by the United States Patent Office at Washington, D. C., from December of 1938 to September of 1939 and has been employed by the Hickok Electrical Instrument Company of Cleveland, Ohio; the National Youth Administration; and the Times Jewelry Company of New York City. He was employed by MAC, Langley Field, Virginia, from December of 1939 to December 22, 1941, when he

was transferred to NACA, Cleveland. His superiors during his tenure at Cleveland were ROBERT E. TOBIER, E. J. WHITNEY, ISADORE WASSERMAN, WELM ROLLIN, and WILLSON HUNTER. He is married to HELEN TARA SALVIN, who was born October 24, 1917, at Chicago, and was last known to reside in care of 765 Parkwood Drive, Cleveland, Ohio. His previous residences are as follows:

1924 - 1938	767 Parkwood Drive Cleveland, Ohio
12/38 - 8/39	Ordway Street, NW Washington, D. C.
9/39 - 1/42	112 Linden Avenue Hampton, Virginia
1/42 - 5/43	17616 Archdale Avenue Lakewood, Ohio
5/43 - 1/44	Military Road, NW Washington, D. C.
2/44 - 6/45	Care of New Amsterdam Hotel Cleveland, Ohio
7/46 - Present	765 Parkwood Drive Cleveland, Ohio

According to BRACY, during 1943 and 1944 GAININ was temporarily assigned to the Bureau of Standards at Washington, D. C., by NACA to assume control of the De-Icing Research Program which was to be transferred from the Bureau of Standards to NACA.

There is no record of ~~HERMAN E. GAININ~~ in the Cleveland indices.

T-6, of known reliable info. advised the writer that he was in contact with EASTMAN JACOBS ~~at which time JACOBS stated that he was an active member of the Communist Party at NACA during his tenure with the~~ b7D

National Advisory Committee for Aeronautics. Informant was unable to draw any details from JACOBS with the exception that JACOBS indicated that most if not all those who had been members of the Communist Party were no longer with NACA.

- F -

- 5 -

ADMINISTRATIVE

Information copies of this report are set forth in accordance with the policy established by SAC Letter #21, Series 1949.

INFORMANTS

T-1

[REDACTED] 7d

T-2

CV-901-S

T-3

[REDACTED] 7d

T-4

[REDACTED] 7d

T-5

[REDACTED] 7d

T-6

[REDACTED] 7d

LEADS

CLEVELAND

IN CLEVELAND, OHIO

Will maintain contact with WACA, Cleveland, for further developments in this matter.

REFERENCE: Report of SA JOHN P. ANDREWS, 9/2/52, Los Angeles.

FEDERAL BUREAU OF INVESTIGATION

FORM NO. 1
THIS CASE ORIGINATED AT

NEW YORK

FILE NO.

REPORT MADE AT CLEVELAND	DATE WHEN MADE 11/10/62	PERIOD FOR WHICH MADE 9/12; 10/8, 27; 11/3/52	REPORT MADE BY JOHN B. O'DONOGHUE <i>kmc</i>
TITLE WILLIAM PERL, aka			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

CELIA JACOBS, former NACA employee, has described MARTIN and NELLIE HIRSHFELD, also former NACA employees, as social acquaintances of subject and stated NELLIE HIRSHFELD is a confessed member of CP. CELIA JACOBS and EASTMAN JACOBS also recall viewing one "HY" GALVIN, a NACA employee, with suspicion. MARTIN HIRSHFELD born 4/3/15, New York City; attended N.Y. City Schools; graduated from CCNY 1936; attended Johns Hopkins and Geo. Washington University; employed U.S. Dept. of Agriculture 1937-40 and NACA 1940-47. NELLIE HIRSHFELD, wife of MARTIN, former Agriculture Dept. employee and known member of CP in Cleveland, 1943-45. HIRSHFELDS now reside Baltimore, Md. No record "HY" GALVIN, NACA; one HERMAN GALVIN, DOB 12/2/12, N.Y. City, attended Cleveland Schools and Ohio State University, employed U.S. Patent Office, 1938-39 and NACA 1939-51. Last known residence Cleveland, O. No record Cv. indices. 1 states EASTMAN JACOBS claims knowledge CP members at NACA, Cleveland, during JACOBS tenure NACA, Cleveland.

- P -

APPROPRIATE AGENCIES
AND FIELD OFFICES
ADVISED BY ROUTING
SLIP(S) OF *declassification*

DATE 3/21/78

APPROVED AND FORWARDED:	SPECIAL AGENT IN CHARGE	DO NOT WRITE IN THESE SPACES	
COPIES OF THIS REPORT		DECLASSIFIED BY <u>5886</u>	
<ul style="list-style-type: none"> ② - Bureau (65-59312)(RM) 4 - New York (65-15387)(RM) 1 - Baltimore (Info)(RM) 1 - Los Angeles (65-5075)(Info)(RM) 1 - San Francisco (Info) 1 - Washington Field (65-5543)(Info)(RM) 1 - Cleveland (65-236) 		<u>3/15/78</u> ON _____	

PROPERTY OF FBI—This confidential report and its contents are loaned to you by the FBI and are not to be distributed outside of agency to which loaned.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

CONFIDENTIAL

748

CV. F.O.
65-2730

Details:

CELIA JACOBS, a former employee of the National Advisory Committee for Aeronautics, when interviewed on August 18, 1952, advised that the subject was acquainted socially and professionally with one MARTIN HIRSHFELD, former employee of NACA, Cleveland, and HIRSHFELD's wife, NELLIE, who, according to CELIA JACOBS, admitted she was a member of the Communist Party during 1944.

CELIA JACOBS and EASTMAN JACOBS also stated that they had known a NACA employee named "HY" GALVIN who had attempted on one occasion to secure the services of his own girlfriend to type up material brought by EASTMAN JACOBS from London for NACA. According to the JACOBS, this was a most unusual incident and caused them to view GALVIN with suspicion.

H. BURTON BRACY, Security Officer, NACA, Cleveland, furnished the following information concerning MARTIN A. HIRSHFELD:

Date of Birth: April 3, 1915, Brooklyn, New York

Educations: College of the City of New York - 2/32 to 6/36, B.S.
Johns Hopkins, Baltimore, Maryland - 9/36 to 6/37
George Washington University, Washington, D. C. - 2/38 to 1/40
High School - Talmudical Academy, New York City

Employments: Department of Agriculture, Beltsville, Maryland - 6/37 to 3/40
NACA, Langley Field, Virginia - 3/4/40 to 11/30/42
NACA, Cleveland, Ohio - 12/1/42 to 8/13/47

Residences: 131 Eaper Street, Brooklyn, New York
101 East Queen Street, Hampton, Virginia - 1940-42
6391 West Ardmore Road, Cleveland, Ohio - 1942-
3716 Behrwald Avenue, Cleveland, Ohio - 1946
Alhambra Apartments, 3-H, Baltimore, Maryland - 1946

Known Relatives:

HARRY L. HIRSHFELD, Father
131 Hooper Street, Brooklyn, New York
SOLOMON HIRSHFELD, Brother
785 East 8th Street, Brooklyn, New York
NELLIE SHAFFER HIRSHFELD, Wife
ALLEN CHARLES HIRSHFELD, Son (Age 8 years,
born February 16, 1944)

HIRSHFELD, during his tenure at NACA, Cleveland, was employed in the Combustion Branch and during 1943-46 his superiors were: C. D. MILLER, R. F. SELDEN, and SIDNEY SIMON. He was placed on a leave without pay status on December 10, 1946, to pursue studies seeking the degree of Doctor of Philosophy and resigned August 13, 1947. Nothing derogatory was noted in NACA files.

The files of the Cleveland Office reflect that MARTIN HIRSHFELD, according to T-1, of known reliability, was vice president of Local 237, Federal Workers Local, UOPWA, Cleveland, Ohio. According to this same informant, one ROBERT RESNICK of NACA was the Cleveland Industrial Union Council representative from this same local, and according to T-2, of known reliability, RESNICK was a member of the Ward 19 Club of the Communist Party. RESNICK has previously been identified as an associate of WILLIAM PERL.

T-3, of known reliability, advised that the operator of an automobile registered to MARTIN L. HIRSHFELD, 3716 Behrwald Avenue, Cleveland, was observed to attend a Communist Party sponsored picnic held at 14300 Turney Road, Garfield Heights, Ohio, and which was advertised as the "17th Annual Cleveland Labor Picnic," on July 4, 1943.

NELLIE SHAFFER HIRSHFELD, also known as Mrs. MARTIN L. HIRSHFELD, was investigated by the FBI during 1942 under the provisions of the Hatch Act when she was employed by the Bureau of Entomology and Plant Quarantine, Norfolk, Virginia. In accordance with Congressional authority and investigative practice, NELLIE SHAFFER HIRSHFELD was requested to appear at the Norfolk, Virginia FBI Office for an interview. Although she appeared on March 27, 1942, Mrs. HIRSHFELD refused to be placed under oath and the interview was, therefore, not conducted. Mrs. HIRSHFELD was born on August 4, 1911, at Boston, Massachusetts, and resigned from the

CV. F.O.
65-2730

Department of Agriculture on March 31, 1942.

Confidential Informants T-2 and T-4, of known reliability, advised that NELLIE HIRSHFELD was Secretary of the Ohio Joint Anti Fascist Refugee Committee during 1943.

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CV. F.O.
65-2730

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1924 - 1938

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5/43 - 1/44

Military Road, NW
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2/44 - 6/46

Care of New Amsterdam Hotel
Cleveland, Ohio

7/46 - Present

765 Parkwood Drive
Cleveland, Ohio

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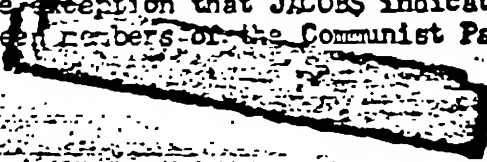
There is no record of HESTER E. GALVIN in the Cleveland indices.

T-6, of known reliability, has advised the writer that he was in contact with EASTMAN JACOBS [REDACTED] at which time JACOBS stated that he knew all the card carrying members of the Communist Party at NACA during his tenure with the [REDACTED] b7D

CV. P.O.
65-2730

~~CONFIDENTIAL~~

National Advisory Committee for Aeronautics. Informant was unable to draw any details from JACOBS with the exception that JACOBS indicated that most if not all those who had been members of the Communist Party were no longer with NACA.



- P -

~~CONFIDENTIAL~~

- 6 -

~~CONFIDENTIAL~~

DR. J. H. G. H. CASSADY, M. S. R.
MAJ. GEN. LAURENCE C. CRAGG, U. S. A. F.
ADM. THOMAS W. S. DAVIS
JAMES H. DOOLITTLE, M. S. R.
RONALD W. MAZIN, B. S.
WILLIAM LITTLEWOOD, M. S. R.

FRANCIS W. B. TUCKER, M. S. R.
WALTER G. TUCKER, M. S. R.
THEODORE T. TUCKER, M. S. R.

NATIONAL ACADEMY OF SCIENCES
FOR AERONAUTICS
1724 F STREET, N. W.
WASHINGTON 25, D. C.

LANGLEY AERONAUTICAL LABORATORY
LANGLEY FIELD, VA.

ARMED AERONAUTICAL LABORATORY
MORTON FIELD, CALIF.

LEWIS FLIGHT PROPULSION LABORATORY
2400 E. 12TH AVE., CLEVELAND 11, OHIO

November 28, 1952

TELEPHONE: LEXINGTON 5-6700

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: William Perl
Espionage - R
Perjury
Your file 65-59312

Dear Sir:

Reference is made to my letter of October 9, 1952,
in the above-captioned case.

Circumstances have arisen which will prevent
Mr. Abbott from going to England this year.

It is hoped that arrangements can be made for the
interview at a later date.

Very truly yours,

Robert L. Bell
Security Officer

RECORDED - 57

65-59312-749

NO DEC 3 1952

SECRET AIR COURIER

19403

~~SECRET~~

Date: October 8, 1952

To: Legal Attache
London, England

From: Director, FBI

Subject: [REDACTED] b1 (S)

WILLIAM PERL
ESPIONAGE - R
PERJURY (Bufile 65-59312)

Classification: [REDACTED] 2/15/72
Exemption Code: [REDACTED]
Date of Declassification: [REDACTED] 2/15/72

Reurlet 7-22-52 captioned as above. (U)

[REDACTED] b1 (S)

[REDACTED] (S)

cc - Foreign Service Desk

APL:cm

65-59312 - ✓
NOT RECORDED
135 OCT 17 1952

X

[REDACTED]

(S)
b1

[REDACTED]

(S)

B1

[REDACTED]

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B1

X

Julius Rosenberg Et AL.

Referral
National
Aeronautics
And Space
Administration

No. 14

Appeal to:

Mr. Miles Waggoner

Freedom of Information Officer

National Aeronautics and Space Administration

Washington, D. C. 20546

Packet: 14

REFERRAL

Reviewed by: Amf / JBR

AGENCY National Aeronautics and Space Administration

No. of Pages

Actual Released

Subject and File Number	Serial	Date	Document Description	No. of Pages	Actual Released
1. Perl (Ng) 65-59312	194	12/28/50	H.g. Letter to C.V.	2	2
2. " " " "	194	12/14/50	National advisory Comm. for Aeronautics Letter to H.g. w/ encls.	1/8	1/8
3. " " " "	546	10/4/51	National advisory Comm. for Aeronautics Letter to H.g.	2	2
4. (Ng) 65-59312	546 EBF	10/4/51	NACA Letter to HQ w/ encls.	2/26	2/26
5. " " " "	617	1/4/52	H.g. Letter to N.Y.	1	1
6. " " " "	617	12/12/51	N.F.O. Letter to H.g. w/ encls.	2/19	2/19
7.					
8.					
9.					
10.					
11.					
12.					

TOP SECRET

December 28, 1950

SAC, CLEVELAND

DIRECTOR, FBI

WILLIAM PERL
ESPIONAGE - R

PERSONAL ATTENTION
STRICTLY CONFIDENTIAL

Remytel 12/16/50.

As you were advised, Mr. Robert Bell, Security Officer of the National Advisory Committee on Aeronautics, Washington, D.C. was interviewed at the Bureau on December 14, 1950, and the matter as to their possession of detailed information relative to the high altitude jet fighter known as the XP-81 was discussed with him. As a result of this discussion he subsequently furnished to the Bureau a photostatic copy of a memorandum for the Coordinator of Research of NACA, dated February 1, 1944. This memorandum was submitted by their West Coast representative, Edwin P. Hartman. It will be noted that this memorandum, a photostatic copy of which is being furnished to your office herewith, as well as to the offices receiving copies of this letter, contains a report of Hartman's visit to the Consolidated Vultee Aircraft Corporation on January 31, 1944, and sets forth detailed information relative to the secret Army project designated as XP-81.

[REDACTED]

As you were advised in referenced teletype, a copy of this memorandum was sent by the NACA, Washington, D.C. to their laboratory in Cleveland, Ohio. The disposition of this copy, which was sent to the Cleveland laboratory, is being discreetly determined through NACA. Further efforts are being made to determine the identity of the

65-59312

cc: New York (Enclosure)
Los Angeles (Enclosure)
San Francisco (Enclosure)
Washington Field (Enclosure)

Enclosure

EFE:hc

JAN 15 1951

DEC 28 1950
COMM - FBI

CLASSIFIED BY 498 AP/2 2-25-78
EXEMPT FROM GDS CATEGORY 2
DATE OF DECLASSIFICATION INDEFINITE

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
EXCEPT WHERE SHOWN
OTHERWISE

TOP SECRET

65-59312-194

APPROPRIATE AGENCIES
AND FIELD OFFICES
ADVISED BY ROUTING
SLIP (S) OF
DATE 12/28/50 3-2-71

TOP SECRET
official or officials who had access to the memorandum, as well as the identity of the official in whose custody this document was placed at the laboratory. Upon receipt of this information the Cleveland Division will be requested to conduct such additional appropriate investigation for the purpose of determining in what manner Perl may have gained access to the information appearing in the memorandum.

Cleveland Division is requested to expedite the investigation requested in Butel December 14, 1950, relative to Eleanore E. Wilkins. It is suggested that it be determined whether in her capacity as Assistant Librarian she may have had access to data on secret experimental projects, which data is normally placed in the custody of some NACA official at the laboratory.

[REDACTED]

BERNARD E. MURPHY, JR., D. CHAIRMAN
ALEXANDER WETMORE, PH. D. VICE CHAIRMAN

DETLEV W. BRONKH, PH. D.
VICE ADM. JOHN M. CASSADY, U. S. N.
EDWARD U. CONDON, PH. D.
MON. THOMAS W. S. DAVIS, LL. B.
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REAR ADM. THEODORE C. LORING, U. S. N.

MAJ. GEN. DOUGLAS
ARTHUR E. BAYNE, D.
FRANCIS W. ECKHART, SC. D.
MON. DELOS W. BENTZEL
GEN. HOTT S. VANDERBERG, U. S. A. F.
MON. WILLIAM WEBSTER, M. E.
THEODORE P. WRIGHT, SC. D.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

1724 F STREET, NORTHWEST
WASHINGTON 25, D. C.

LANGLEY AERONAUTICAL LABORATORY
LANGLEY FIELD, VA.

AMES AERONAUTICAL LABORATORY
MOFFETT FIELD, CALIF.

LEWIS FLIGHT PROPELLER LABORATORY
CLEVELAND AIRPORT, CLEVELAND 11, OHIO

TELEPHONES: EXECUTIVE 3518
3516
3517

December 14, 1950

2/16/50 [signature]
CONFIDENTIAL

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Re: William Perl, Espionage R

Dear Sir:

At the request of Mr. Robert J. Lamphere, I am transmitting herewith a copy of a memorandum entitled "Visit to the Vultee Field Division of the Consolidated Vultee Aircraft Corporation on January 31, 1944". This memorandum may contain information of interest to you in the captioned case.

I have initiated inquiries in an effort to ascertain whether William Perl, when he was employed at our Laboratory at Cleveland, Ohio, saw this document. I shall advise you later as to the result of these inquiries.

Very truly yours,

NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS

[Signature]
Robert L. Bell
Security Officer

RECORDED - 65

65-59312-194

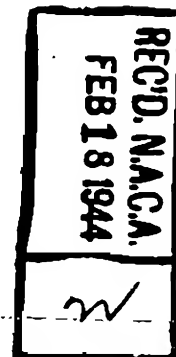
*44 Cleveland
cc: [unclear]
54 [unclear]
all [unclear]
12-2-50
EJE*
TS
CONFIDENTIAL

To be signed and returned to the National Advisory Committee
for Aeronautics, 1500 New Hampshire Avenue, N. W., Wash-
ington, D. C.

February 8, 1944

From: National Advisory Committee for Aeronautics.

To: AERL



Subject: Receipt for documents.

Reference:

Receipt is hereby acknowledged of the following documents:

1 copy of Hartman's memorandum for Coordinator of
Research, 2-1-44: "Visit to the Vultee Field
Division of the Consolidated Vultee Aircraft
Corporation on January 31, 1944."

seg

Date received 2 Feb - 44

Name

Carlton Kupper

Rank

Executive Engineer

A.I. 3c

FEB 5 1944

~~SECRET~~

Santa Monica, California
February 1, 1944

MEMORANDUM For Coordinator of Research

Subject: Visit to the Vultee Field Division of the Consolidated Vultee Aircraft Corporation on January 31, 1944.

1. **CONTACTS:** During this visit to the Vultee Field Division, I had an opportunity to speak with Mr. Price, engineering manager; Mr. Frank Davis, chief of aerodynamics and flight; Messrs. Ralph Shick, Harold Pope, and others of the aerodynamics department; Messrs. Paul Anderson and Howard Dunholter, of the power plants group; Mr. Frank Albright, project engineer on Vultee's new Army project; and Prof. Victor Martin, of the University of Washington, who is rendering consulting service in connection with the new project.

2. **XP-81:** Mr. Price authorized clearance for me to Vultee's new secret Army project, variously designated as the XP-81, MX-480, and Vultee project 102. This project is the development of a long-range high-altitude fighter suitable for use as a bomber convoy. The airplane will have a gross weight of about 20,000 pounds and is of fairly conventional design except for its propulsive system.

3. The propulsive system consists of two power plants. One power plant, located in the nose of the fuselage, is a 2000- (ground) to 3000-horsepower General Electric TG-100 unit driving a 12-foot four-blade Aero-products propeller. Approximately 80 percent of the power of this unit goes into the propeller, and the remaining power is produced by the jet action of the combustion products as they are ejected through a duct on the bottom of the fuselage. The air intake for this unit is through the nose of the fuselage.

4. The second power plant is located behind the pilot's cockpit and well back in the fuselage. It is a 4000-pound-thrust General Electric I-40 jet unit which exhausts through a circular opening in the rear end of the fuselage. The location of the air-intake

scoop for this unit is to be either at the bottom of the fuselage or at the top of the fuselage behind the pilot's enclosure; the decision in this matter is of immediate concern to Vultee engineers.

5. In discussing this problem, Vultee engineers pointed out that the Army is afraid that an intake scoop located underneath the fuselage will pick up stones and other foreign objects thrown by the wheels during take-off; on the other hand, if the intake scoop is located on the top of the fuselage behind the pilot's enclosure, Vultee engineers fear that compressibility separation on the pilot's enclosure may seriously disturb the air flow into the duct. The enclosure will, of course, be designed to have the highest possible critical speed.

6. The fuselage of the XP-81 is long and slim and is mounted well forward on the wing. The fuselage is, indeed, mounted so far forward on the wing that Vultee engineers are somewhat concerned about the effect of the short tail length (2.5 M.A.C.) and of the long nose on the stability of the airplane. A conventional-appearing tail with a single vertical surface is mounted on the rear end of the fuselage, and the landing gear is of the tricycle type.

7. Fuel (kerosene) is carried in tanks inside the fuselage over the wing and, on long-range missions, in a streamlined tank mounted under each wing. For short bombing missions, the disposable gas tanks can be replaced with two 2000-pound bombs.

8. The wing has an aspect ratio of 6, a taper ratio of $3\frac{1}{2}:1$, and is swept forward so that the leading edge is nearly straight. The wing loading is about 39 pounds per square foot. The wing has NACA 63-series sections and is 13 percent thick throughout the span. For structural reasons, Vultee will remove the cusp from the trailing edge.

9. In discussing the matter of sweep, Vultee engineers said they had chosen to use a sweptforward wing on the XP-81 in an attempt to avoid tip stall. They had made this choice, Mr. Shick said, with the full realization that the lateral stability of a sweptforward wing, especially with flaps down, was poor and that the dihedral effect might even be negative.

This condition had been encountered on a number of airplanes, including some of their own, Mr. Shiek stated, but pilots had considered it not at all serious. Inasmuch as the wing of the XP-81 has such a high taper ratio, Vultee engineers thought they should give most weight to the factors that improve the stall.

10. Performance estimates indicate that the airplane will have a range of 2500 miles; a speed which, neglecting compressibility shock, would be about 850 miles per hour; a rate of climb at sea level of better than 6000 feet per minute; and a ceiling of something more than 80,000 feet. The XP-81 is expected to be able to cruise at 250 miles per hour to an objective 1250 miles away, fight 20 minutes at full power, and return at 300 miles per hour. During the outward and the return trips, the TG-100 unit alone will be used. Inasmuch as the airplane is expected to convoy bombers at high altitude, it will, I believe, have a pressure cabin.

11. Great emphasis is being placed on speed of construction for the airplane is scheduled to fly in September. Since the project is a rush job, the wind-tunnel test programs are laid out on a very tight schedule and will need to be facilitated in every way possible to be successfully completed in time to contribute to the design. The wind-tunnel test program that Vultee has laid out specifies tests in four different tunnels which are listed in chronological order as follows:

- (1) Duct and scoop tests with a 1/4-scale fuselage model in the Vultee tunnel. This series of tests is about to start.
- (2) Tests of a 1/6.5-scale complete model in the Caltech tunnel.
- (3) Scoop, duct, and jet tests of a 1/4-scale, powered (?), fuselage-stub wing model in the AAL 7- by 10-foot tunnel.
- (4) Tests of a 1/4-scale powered complete model in the AAL 16-foot tunnel.

12. The program of tests was said to have been discussed with the AAL staff during a recent visit Vultee engineers made to the laboratory. Arrangements were made at that time, Mr. Shick said, for AAL to furnish a 150-horsepower motor for the tests. Vultee engineers are now concerned with the procurement of a four-blade 3-foot-diameter propeller for the tests. Inasmuch as they lack the time and facilities for constructing the propeller, they would like to borrow the blades from any agency that may have some available. They expect, of course, that it will be necessary for them to build the hub and are prepared to do so.

13. Vultee has inquired, without success, of the local aircraft companies concerning the availability of blades for a 3-foot propeller. Douglas informed them that a Douglas model (A-28?) which was tested in the LMAL 19-foot tunnel had 3-foot-diameter propellers but that the model was still at LMAL and was now the property of the Army. Mr. Shick said that the company had addressed a request to the NACA for the loan of a 3-foot-diameter propeller but had been informed that none was available. He said that the request, through business office handling, had been very untastefully worded. If the Committee can furnish three or more blades for an approximately 3-foot-diameter propeller or can inform the Vultee company where such blades are obtainable on loan, the Vultee engineering staff will be very appreciative.

14. XA-41: In the experimental shop I inspected the Vultee XA-41 airplane, which was approaching completion and which will fly in a very few days. The XA-41 airplane is the only one to be built under a contract which was canceled a few months ago.

15. The airplane was being instrumented for flight tests, but the instrumentation did not include the Vultee Radio Recorder as that device appears still to be in an experimental stage of development. The Radio Recorder project, as well as Mr. Giffen and others who are in charge of it, was reported to have been transferred to the San Diego Division. At the San Diego plant, the Radio Recorder will be installed in an airplane for extensive tests to determine its operating characteristics.

16. The IA-41 airplane, which has been described in previous memorandums, has a gross weight of around 18,000 pounds and is of fairly conventional appearance except for a very stubby, low-aspect-ratio (about 1.5) vertical tail surface. The surface seems even shorter because of the deep dorsal fin which extends forward several feet and finally, at its forward end, fair into the shield of a directional antenna located behind the pilot's canopy. Despite the apparent inadequacy of the vertical surface, wind-tunnel tests were reported to have indicated that the value of $dc_n/d\beta$ was equal to 0.0017, which Vultee engineers consider satisfactory.

17. The airplane has a slotted flap and sealed, internally balanced ailerons with a geared booster tab. The elevator has a blunt leading-edge balance with a curtain-sealed gap. It has a spring booster tab on one side and a trim tab on the other. The rudder has a blunt-nose balance with a curtain-sealed gap and a spring tab.

18. Provisions have been made for the installation of heavy armament consisting of four 37-mm cannon and several .50-caliber machine guns. The fuselage has a large bomb bay which can be used alternately for bombs or the partial enclosure of a torpedo.

19. The airplane is powered with a Wasp Major 4360-9 engine which has a 2:1 gear ratio, develops rated power at 2700 rpm, and turns a 13-foot four-blade Hamilton Standard 6507A-0 propeller. The engine that is now in the airplane is the second one that Vultee has received from the Pratt & Whitney company. The first one suffered a failure while being tested on Vultee's new engine static test stand. Although the damage to the engine was known to include a broken connecting rod, Vultee engineers never did determine the full extent of the damage nor the cause of the trouble as the engine was returned to the Pratt & Whitney company without being torn down for inspection.

20. After the failure occurred, Vultee engineers were afraid that they would not be permitted to have another engine for installation in the airplane, but their fears were unfounded. They are taking no chances with the second engine, however, and have installed it immediately in the airplane. The first Wasp Major engine was reported by Vultee engineers to have run very smoothly during their static tests; in fact, these engines run so smoothly, Mr. Anderson said, that Pratt &

Whitney had installed one, in a test airplane, without Lord shock mounts.

21. The engines are received from the Pratt & Whitney company equipped with shielded total-head tubes and thermocouples attached to the heads and bases of the cylinders. Pratt & Whitney was said to have installed this instrumentation for the purpose of getting consistent results from tests of the engines mounted in different airplanes.

22. The engine cowling is of conventional design though it involves the use of a spinner and an inner cowling or spinner fairing for increased inlet efficiency. The cowling has an external carburetor-air scoop on top extending well forward toward the lip of the cowling and a large external air scoop on the forward bottom part of the cowling leading to two oil radiators below the engine. The Siamezed exhaust stacks are long and exit through a number of tunnels underneath the cowl flaps.

23. The fuel system of the XA-41 airplane has been tested in the Thompson Products laboratory at Inglewood, where some difficulties from aeration and vapor lock were noticed. Although, in these tests, it was found desirable to have two booster pumps in the fuel tank, Vultee has found it convenient to install but one and, when the fuel level in the tank gets low, this one does not function very satisfactorily. This difficulty cannot be alleviated by installing the pump in a sump because there is no room for a tank sump in the airplane. The fuel system thus is considered not entirely satisfactory but, inasmuch as only one airplane is to be built, Vultee believed the expenditure of more time on it to be undesirable.

24. XP-54: The second and last XP-54 is being assembled and will be completed in a month or two. Vultee has apparently turned over the first XP-54 to the Army. The previously reported oil-foaming problem on the XP-54 was not entirely solved as it appeared to be, partly at least, the fault of the engine. The engine apparently had insufficient scavenging-pump capacity, and the drainage passages for the oil in the crankcase and other parts of the engine also were apparently too small. The Lycoming company was reported to be studying the oil-scavenging problem on the engine in its laboratory.

25. HANDLING QUALITIES: Mr. Davis has recently had an opportunity to fly a number of airplanes, including the F4F, the F4U, and the F6F, in close succession and thus to compare their handling characteristics. Although it is slower than the others, he found the F6F to have the best handling qualities. Perhaps somewhat biased, he said that even the F6F did not have as good handling qualities as the P-66, the Vultee Vanguard.

Edwin P. Hartman.

EPH:jkh

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October 4, 1951

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: William Perl
aka William Mutterperl
Espionage - R
Perjury

Dear Sir:

An answer to your letter of August 29, 1951 has been delayed until it was possible to assemble the information requested.

There is attached a list of classified documents forwarded to Dr. Theodore Von Karman between September 1, 1948 and July 28, 1949. The list (exhibit A) gives the code number of the report, the copy number of the report sent to Dr. Von Karman, the date of the release, and the address to which the report was sent. Attached as exhibit B are the titles of reports classified Confidential or Restricted which were sent to Dr. Von Karman between September 3, 1948 and July 12, 1949, together with the security classification as of July 4, 1949. Cross reference between the lists can be made by means of the code number. Exhibit C gives the titles of reports which were classified "Secret" at the time they were released. You will note that although these reports were Secret as of July 4, 1949 they have since been reclassified to Confidential. Attached as exhibit D are the original receipts covering these reports. Copies of these receipts have not been retained in NACA; at the completion of your examination you are requested to return the receipts to me.

Receipts were not required after January 1, 1949 for material classified Restricted, and, accordingly, receipts for such documents are not available. Receipts for the

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OCT 5 1951

11/1/52
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Director
Federal Bureau of Investigation

-2-

October 4, 1951

following Restricted documents are no longer available:

L8I17, Copy 77, Released 11-24-48
L8H31, Copy 61, Released 11-17-48
L8I24, Copy 63, Released 12-2-48
L8H25a, Copy 77, Released 12-6-48
L8J07, Copy 61, Released 12-6-48
L8G22, Copy 61, Released 12-6-48
A8J21, Copy 60, Released 12-16-48
L8I08, Copy 61, Released 12-17-48
A8H30, Copy 60, Released 12-20-48

The receipt for RM A9C21 (copy 59) was not returned
by Dr. Von Karman.

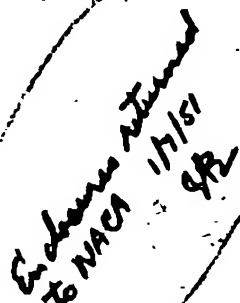
I am unable to locate any record in NACA indicating
that any of the documents listed on the attached lists or
on the enclosures to your letter have been destroyed or
returned to NACA.

Very truly yours,



Robert L. Bell
Security Officer

Attachment



Enclosure returned
to NACA 1/1/51
GR

COPY

NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS
1724 F Street, Northwest
Washington 25, D. C.

October 4, 1951

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: William Perl
aka William Mutterperl
Espionage - R
Perjury

Dear Sir:

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Receipts were not required after January 1, 1949 for material classified Restricted, and, accordingly, receipts for such documents are not available. Receipts for the

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Federal Bureau of Investigation -2- October 4, 1951

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LSI34, Copy 63, Released 12-2-48
LSH23a, Copy 77, Released 12-6-48
LSJ07, Copy 61, Released 12-6-48
LSG22, Copy 61, Released 12-6-48
ASJ21, Copy 60, Released 12-16-48
LSI08, Copy 61, Released 12-17-48
ASE20, Copy 60, Released 12-20-48

The receipt for RM ASC21 (copy 59) was not returned
by Dr. Von Karman.

I am unable to locate any record in NACA indicating
that any of the documents listed on the attached lists or
on the enclosures to your letter have been destroyed or
returned to NACA.

Very truly yours,

/s/ Robert L. Bell

Robert L. Bell
Security Officer

Attachment

CLASSIFIED DOCUMENTS FORWARDED BY NACA TO DR. THEODORE VON KARMAN -
September 1, 1946 through July 31, 1949.

<u>Copy No.</u>	<u>Code No.</u>	<u>Date of Release</u>	<u>Location</u>
79	RM L8E06	9-1-48	Columbia University
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61	RM L8D21	9-7-48	" "
150	RM L8F08	9-8-48	" "
61	RM L8F04	9-8-48	" "
61	RM L8D29	9-8-48	" "
61	R N L8D28	9-10-48	" "
186	RM E8F15	9-15-48	" "
61	RM A8F21	9-20-48	" "
149	RM A8E03	9-21-48	" "
54	RM L8G26	9-21-48	" "
148	RM A8F22	9-22-48	California Institute of Technology
59	RM L8F16	9-23-48	" "
167	RM A8H12	9-23-48	" "
61	RM L8A28e	9-23-48	Columbia University
61	RM L8F11	9-24-48	California Institute of Technology
87	RM L8A21	9-24-48	
59	RM L8G05	10-1-48	California Institute of Technology
59	RM L8G19	10-1-48	" "
191	RM L8G20	10-1-48	" "
59	RM L8D06	10-4-48	" "
62	RM L8G23	10-5-48	" "
64	RM L8E26	10-48-5	" "
61	RM A8D20	10-11-48	" "
61	RM A8H03	10-11-48	" "
178	RM 8J05	10-11-48	" "
8	* RM L8I29	10-13-48	Scientific Advisory Board, Wash., D.C.
62	RM A8F15	10-15-48	California Institute of Technology
69	RM A8F21	10-19-48	" "
94	RM L7I10	10-22-48	" "
193	RM L8G20a	10-22-48	" "
62	RM L8J06	10-22-48	" "
193	RM L8E25	10-25-48	" "
94	RM L8I27	10-26-48	" "
80	RM L8D27	10-27-48	" "
62	RM L8E21	10-28-48	" "
62	RM L8A14	10-28-48	" "
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74	RM L8H11	11-3-48	" "
62	RM L8H05	11-5-48	" "
94	RM L8F01	11-8-48	" "
61	RM L8E18	11-8-48	" "
61	RM L8H12	11-8-48	" "
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187	RM L8H10	11-10-48	" "
61	RM L8D30	11-10-48	" "
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187	RM L8I03	11-10-48	" "
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154	RM E8J13	11-12-48	" "
66	RM L8H30	11-12-48	" "
61	RM L8H20	11-12-48	" "
63	RM L8H19	11-12-48	" "
62	RM A8I29	11-16-48	" "
8	* RM L8I28	11-16-48	Scientific Advisory Board, Wash., D.C.
61	RM L8H25	11-16-48	California Institut of Technology
61	RM L8H31	11-17-48	" "
61	RM L8H31a	11-17-48	" "
187	RM A8I17	11-18-48	" "
158	RM L8I02	11-18-48	" "
159	RM A8I16	11-19-48	" "
8	* RM L8K05	11-19-48	Scientific Advisory Board, Wash., D.C.
154	RM L8I30	11-24-48	California Institut of Technology
70	RM L8I17	11-24-48	" "
187	RM L8I23	11-29-48	" "
61	RM L8H09	12-2-48	" "
63	RM L8I24	12-2-48	" "
64	RM L8I30a	12-3-48	" "
154	RM A8I20	12-3-48	" "
77	RM L8H25a	12-6-48	" "
61	RM L8J07	12-6-48	" "
187	RM L8J01	12-6-48	" "
61	RM L8G22	12-16-48	" "
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185	RM L8I01	1-7-49	"
185	RM L8K04	1-11-49	"
153	RM L8K17a	1-11-49	"
185	L8K23a	1-12-49	"
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60	RM L8K02	1-13-49	"
152	RM L8K12a	1-13-49	"
185	RM L8K23	1-13-49	"
60	RM L8J12	1-17-49	"
174	RM L8L06	1-17-49	"
48	RM 8107	1-21-49	"
61	RM A8D02	1-21-49	"
153	RM E8K05	1-21-49	"
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77	RM L8K26	2-15-49	"
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153	RM L8L07	2-24-49	"
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159	RM A8L16	3-2-49	"
154	RM L8L07a	3-3-49	"
61	RM L8L31a	3-3-49	"
61	RM L9A18	3-7-49	"
186	RM L9A12	3-8-49	"
62	RM L9B02	3-10-49	"
62	RM L9A07	3-10-49	"
186	RM L9A18a	3-11-49	"
83	RM A9A31	3-15-49	"
65	RM L9A17	3-23-49	"
63	RM A9A24	3-25-49	"
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182	RM L9C23a	4-18-49	" "
59	RM L9C23a	4-19-49	" "
150	RM L9C25b	4-20-49	" "
59	RM L9A24	4-20-49	" "
182	RM L9C24a	4-20-49	" "
59	RM L9C25	4-21-49	" "
59	RM L9C11	4-21-49	" "
59	RM A9C17	4-21-49	" "
59	RM L8K03	4-21-49	" "
59	RM L9C25a	4-26-49	" "
150	RM L9C11	4-29-49	" "
59	RM L9C13	5-9-49	" "
142	RM A9C07	5-10-49	" "
58	RM L9C23	5-13-49	" "
145	RM L9C07	5-16-49	" "
59	RM A9C21	5-25-49	" "
59	RM L9C18	5-25-49	" "
59	RM L9D06a	6-1-49	" "
59	RM L9D11	6-6-49	" "
174	RM A9D20	6-6-49	" "
63	RM L9D20	6-6-49	" "
59	RM L9D20a	6-6-49	" "
59	RM L9D06	6-9-49	" "
59	RM L9D08	6-9-49	" "
70	RM L9D29	6-9-49	" "
59	RM A9B28	6-13-49	" "
116	RM E9E16	6-15-49	" "
59	RM L9D29a	6-16-49	" "
59	RM A9D29	6-17-49	" "
62	RM E9E02	6-17-49	" "
59	RM L9D13	6-23-49	" "
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108	RM A9E16	6-24-49	" "
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59	RM A9D08	7-1-49	" "
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106	RM A9E09	7-12-49	" "
56	RM A9E31	7-12-49	" "
108	RM L9E19	7-18-49	" "
57	RM L9E24	7-21-49	" "
57	RM L9E25	7-22-49	" "
132	RM L9D12	7-26-49	" "
107	RM L9E27a	7-28-49	" "

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R.M.'s (cont'd.)

5

Aerodynamic Characteristics of a Two-Blade NACA 10(3)(08)-
Q3R Propeller. Albert J. Evans and Leland B. Salters, Jr.
RM 18E24. Restricted. Released 9-3-48.

Preliminary Investigation of Various Ailerons on a 42° Swept-
back Wing for Lateral Control at Transonic Speeds. Thomas
R. Turner, Vernard B. Lockwood, and Raymond D. Vogler.
RM 18D21. Confidential. Released 9-7-48.

Transonic Drag Characteristics of a Wing-Body Combination
Showing the Effect of a Large Wing Fillet. Donald C.
Owenham and Max C. Kurbjun. RM 18F08. Confidential. Re-
leased 9-8-48.

Effect of Ground Interference on the Aerodynamic Characteris-
tics of a 42° Sweptback Wing. G. Chester Furlong and Thomas
V. Bollech. RM 18F04. Restricted. Released 9-8-48.

Wind Tunnel Investigation of High-Lift and Stall-Control De-
vices on a 37° Sweptback Wing of Aspect Ratio 6 at High
Reynolds Numbers. William Koven and Robert R. Graham.
RM 18D29. Restricted. Released 9-8-48.

Pilot Escape from Spinning Airplanes as Determined from Free-
Spinning-Tunnel Tests. Stanley H. Scher. RM 18D28. Con-
fidential. Released 9-10-48.

Preliminary Investigation of Effects of Combustion in Ram Jet
on Performance of Supersonic Diffusers. I. Shock Diffuser
with Triple-Shock Projecting Cone. J. F. Connors and A. H.
Schroeder. RM 18F15. Confidential. Released 9-15-48.

Tests of a Triangular Wing of Aspect Ratio 2 in the Ames 12-
Foot Pressure Wind Tunnel. III - The Effectiveness and
Hinge Moments of a Skewed Wing-Tip Flap. Carl D. Kolbe
and Bruce E. Tinling. RM A8E21. Restricted. Released
9-20-48.

Tests of a Triangular Wing of Aspect Ratio 2 in the Ames 12-
Foot Pressure Wind Tunnel. II - The Effectiveness and Hinge
Moments of a Constant-Chord Plain Flap. Jack D. Stephenson
and Arthur R. Amuedo. RM A8E03. Restricted. Released
9-21-48.

Notes on the Application of Airfoil Studies to Helicopter Rotor
Design. Frederick B. Gustafson. RM 18C26. Restricted.
Released 9-21-48.

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Investigation at Supersonic Speed ($M = 1.53$) of the Pressure Distribution over a 63° Swept Airfoil of Biconvex Section at Angles of Attack. John W. Boyd, Elliott D. Katzen, and Charles W. Frick. RM AEF22. Confidential. Released 9-22-48.

Low Speed Pressure Distributions over the Drooped-Nose Flap of a 42° Sweptback Wing with Circular-Arc Airfoil Sections at a Reynolds Number of 5.3×10^6 . Stanley H. Spooner and Robert L. Woods. RM L8F16. Restricted. Released 9-23-48.

High-Speed Aerodynamic Characteristics of a Lateral-Control Model. I - NACA 0012-64 Airfoil Section with 20-Percent-Chord Plain Aileron and 0° and 45° Sweepback. Joseph L. Anderson and Walter J. Krumm. RM ABH12. Confidential. Released 9-23-48.

Landing Characteristics of High-Speed Wings. Herbert A. Wilson, Jr. and Laurence K. Lortin, Jr. RM L8A28e. Confidential. Released 9-23-48.

Method for Stress Analysis of a Swept Propeller. Richard T. Whitcomb. RM L8F11. Confidential. Released 9-24-48.

October

Full-Scale Investigation of an Equilateral Triangular Wing Having 10-Percent Thick Biconvex Airfoil Sections. Edward D. Whittle, Jr. and J. Calvin Lovell. RM L8G05. Restricted. Released 10-1-48.

Wind-Tunnel Investigation at Low Speeds of the Pitching Derivatives of Untapered Swept Wings. Robert MacLachlan and Lewis R. Fisher. RM L8G19. Restricted. Released 10-1-48.

Effect of High-Lift Devices on the Low-Speed Static Lateral and Yawing Stability Characteristics of an Untapered 45° Sweptback Wing. Jacob H. Lichtenstein. RM L8G20. Restricted. Released 10-1-48.

Effect of High-Lift Devices on the Longitudinal and Lateral Characteristics of a 45° Sweptback Wing with Symmetrical Circular-Arc Sections. Eugene R. Guryansky and Stanley Lipson. RM L8D06. Restricted. Released 10-4-48.

Effects of Aspect Ratio on Air Flow at High Subsonic Mach Numbers. W. F. Lindsey and Milton D. Humphreys. RM L8G23. Confidential. Released 10-5-48.

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Aerodynamic Characteristics at High Speeds of a Two-Blade NACA 10-(3)(062)-045 Propeller and of a Two-Blade NACA 10-(3)(08)-045 Propeller. William Solomon. RM L8E26. Confidential. Released 10-5-48.

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Sweptback-63°. Mach and Reynolds Number Effects on the Characteristics of the Wing and on the Effectiveness of an Elevon. Robert M. Reynolds and Donald Smith. RM A8D20. Confidential. Released 10-11-48.

Some Preliminary Results in the Determination of Aerodynamic Derivatives of Control Surfaces in the Transonic Speed Range by Means of a Flush-Type Electrical Pressure Cell. Albert L. Erickson and Robert C. Robinson. RM A8H03. Confidential. Released 10-11-48.

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Investigation of a Thin Wing of Aspect Ratio 4 in the Ames 12-Foot Pressure Wind Tunnel. II - The Effect of Constant-Chord Leading- and Trailing-Edge Flaps on the Low-Speed Characteristics of the Wing. Ben H. Johnson, Jr. and Angelo Battistini. RM A8F15. Confidential. Released 10-15-48.

An Experimental Investigation at Large Scale of Several Configurations of an NACA Submerged Air Intake. Norman J. Martin and Curt A. Holzhauser. RM A8F21. Confidential. Released 10-19-48.

Hydrodynamic Characteristics of a Low-Drag Planing-Tail, Flying-Boat Hull. Henry B. Suydam. RM L7I10. Confidential. Released 10-22-48.

Free-Flight Investigation at Transonic and Supersonic Speeds of the Rolling Effectiveness of a Thin, Unswept Wing Having Partial-Span Ailerons. Carl Sandahl. RM L8G20a. Confidential. Released 10-22-48.

NACA Transonic Wind-Tunnel Test Sections. Ray H. Wright and Vernon G. Ward. RM L8J06. Confidential. Released 10-22-48.

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Aerodynamic Characteristics of Three Deep-Step Planing-Tail Flying-Boat Hulls. John M. Riebe and Rodger L. Naeseth. RM L8I27. Confidential. Released 10-26-48.

Method of Estimating the Minimum Size of a Tail or Wing-Tip Parachute for Emergency Spin Recovery of an Airplane. Frank S. Malvestubb Jr. RM L8D27. Confidential. Released 10-27-48.

The Effect of Boundary-Layer Control by Suction and of Several High-Lift Devices on the Aerodynamic Characteristics in Yaw of a 45.5° Sweptback Wing-Fuselage Combination. Jerome Pasamanick. RM L8E21. Restricted. Released 10-28-48.

Investigation of Low-Speed, Power-Off Stability and Control Characteristics of a Model with a 35° Sweptback Wing in the Langley Free-Flight Tunnel. Robert O. Schade. RM L8A14. Confidential. Released 10-28-48.

Aerodynamic Characteristics of a Three-Blade Propeller Having NACA 10-(3)(08)-63 Blades. Robert E. Davidson. RM L8H16. Confidential. Released 10-28-48.

Aerodynamic Characteristics at High Speeds of Full-Scale Propellers Having Clark Y Blade Sections. Peter J. Johnson. RM L8E07. Restricted. Released 10-29-48.

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Flight Investigation of Loads on a Bubble-Type Canopy. Cloyce E. Matheny and Wilber B. Huston. RM L8C30. Unclassified. Released 11-1-48.

Aerodynamic Characteristics of Two All-Movable Wings Tested in the Presence of a Fuselage at a Mach Number of 1.9. D. William Conner. RM L8H04. Confidential. Released 11-1-48.

Effect of Downwash on the Estimated Elevator Deflection Required for Trim of the XS-1 Airplane at Supersonic Speeds. James T. Matthews, Jr. RM L8H06a. Confidential. Released 11-1-48.

Pressure Distributions over a Wing-Fuselage Model at Mach Numbers of 0.4 to 0.99 and at 1.2. Clarence W. Matthews. RM L8H06. Confidential. Released 11-3-48.

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Investigation of Interaction Effects Arising from Side-Wall Boundary Layers in Subsonic Wind-Tunnel Tests of Airfoils. R. Czarnecki and C. F. Schueller. RM L8G27. Restricted. Released 11-3-48.

Investigation to Determine the Aerodynamic Characteristics of Rocket-Powered Models Representative of a Fighter-Type Airplane Configuration Incorporating an Inverse-Taper Wing and a Vee Tail. Sidney R. Alexander. RM L8G29. Confidential. Released 11-3-48.

Preliminary Correlation of the Effect of Compressibility on the Location of the Section Aerodynamic Center at Subcritical Speeds. Edward O. Polhamus. RM L8D14. Restricted. Released 11-3-48.

The Effects of Stability of Spin-Recovery Tail Parachutes on the Behavior of Airplanes in Gliding Flight and in Spins. Stanley H. Scher and John W. Draper. RM L8E19. Confidential. Released 11-3-48.

High-Speed Wind-Tunnel Tests of a 1/16-Scale Model of the D-558 Research Airplane. Dynamic Pressure and Comparison of Point and Effective Downwash at the Tail of the D-558-1. Harold L. Robinson. RM L8H05. Confidential. Released 11-5-48.

Aerodynamic Characteristics of a Refined Deep-Step Planing-Tail Flying-Boat Hull with Various Forebody and Afterbody Shapes. John M. Riebe and Rodger L. Naeseth. RM L8F01. Confidential. Released 11-8-48.

The Effect of Boundary-Layer Control by Suction and Several High-Lift Devices on the Longitudinal Aerodynamic Characteristics of a 45° Sweptback Wing-Fuselage Combination. Jerome Pasamanick and Anthony J. Proterra. RM L8E18. Restricted. Released 11-8-48.

Yaw Characteristics of a 52° Sweptback Wing of NACA 64-112 Section with a Fuselage and with Leading-Edge and Split Flaps at Reynolds Numbers from 1.93×10^6 to 6.00×10^6 . Reino J. Salmi. RM L8H12. Restricted. Released 11-8-48.

The Effects of Friction in the Control System on the Handling Qualities of a C-54D Airplane. Donald B. Talmage and John P. Reeder. RM L8G30a. Unclassified. Released 11-9-48.

Effect of Taper Ratio on the Low-Speed Rolling Stability Derivatives of Swept and Unswept Wings of Aspect Ratio 2.61. Jack D. Brewer and Lewis R. Fisher. RM L8H18. Restricted. Released 11-9-48.

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Norman S. Silsby and James M. McKay. RM 18G30. Confidential. Released 11-10-48.

Effect of Airfoil Profiles of Symmetrical Sections on the Low-Speed Static Stability and Yawing Derivatives of 45° Sweptback Wing Models of Aspect Ratio 2.61. William Letko and Byron M. Jaquette. RM 18H10. Restricted. Released 11-10-48.

Effect of Leading-Edge High-Lift Devices and Split Flaps on the Maximum-Lift and Lateral Characteristics of a Rectangular Wing of Aspect Ratio 3.4 with Circular-Arc Airfoil Sections at Reynolds Numbers from 2.9×10^6 to 8.4×10^6 . Erby H. Lange and Ralph W. May, Jr. RM 18D30. Restricted. Released 11-10-48.

Aerodynamic Characteristics of Flying-Boat Hulls Having Length-Beam Ratios of 20 and 30. John M. Riebel. RM 18H11. Restricted. 11-10-48.

The Effects of High-Lift Devices on the Low-Speed Stability Characteristics of a Tapered 37.5° Sweptback Wing of Aspect Ratio 3 in Straight and Rolling Flow. M. J. Queijo and Jacob H. Lichtenstein. RM 18I03. Restricted. Released 11-10-48.

Determination by the Free-Fall Method of the Longitudinal Stability and Control Characteristics of a 1/4-Scale Model of the Bell XS-1 Airplane at Transonic Speeds. James T. Matthews, Jr. and Charles W. Mathews. RM 18G29a. Confidential. Released 11-10-48.

Theoretical and Experimental Analysis of Low-Drag Supersonic Inlets Having a Circular Cross Section and a Central Body at Mach Numbers of 3.30, 2.75, and 2.45. Antonio Ferri and Louis M. Nucella. RM 18H13. Confidential. Released 11-10-48.

Investigation of a Variable Mach Number Supersonic Tunnel with Nonintersecting Characteristics. John C. Evvard and DeMarquis D. Wyatt. RM EE13. Confidential. Released 11-12-48.

Investigation of the Effect of Sweep on the Flutter of Cantilever Wings. J. C. Barmby, H. J. Cunningham, and I. E. Garrick. RM 18H30. Restricted. Released 11-12-48.

An Investigation at Low Speed of a 51.3° Sweptback Semispan Wing Equipped with 16.7-Percent-Chord Plain Flaps and Ailerons Having Various Spans and Three Trailing-Edge Angles. Jack Fischel and Leslie E. Schaefer. RM L8H20. Restricted. Released 11-12-48.

Wind-Tunnel Tests of a Swept-Blade Propeller and Related Straight Blades Having Thickness Ratios of 5 and 6 Percent. W. H. Gray. RM L8H19. Restricted. Released 11-12-48.

Experimental Determination of the Lateral Stability of a Glider Towed by a Single Towline and Correlation with an Approximate Theory. Bernard Maggin and Robert E. Shanks. RM L8H23. Unclassified. Released 11-15-48.

Recovery Characteristics of NACA Submerged Inlets at High Subsonic Speeds. Charles F. Hall and Joseph L. Frank. RM A8I29. Confidential. Released 11-16-48.

Static Longitudinal Aerodynamic Characteristics of a 52° Sweptback Wing of Aspect Ratio 2.88 at Reynolds Numbers from 2,000,000 to 11,000,000. James E. Fitzpatrick and Gerald V. Foster. RM L8H25. Restricted. Released 11-16-48.

An Investigation of the Low-Speed Stability Characteristics of Complete Models Having Sweptback and Sweptforward Wings. M. Leroy Spearman and Paul Comisarow. RM L8H31. Restricted. Released 11-17-48.

Effect of Strut-Mounted Wing Tanks on the Drag of NACA RM-2 Test Vehicles in Flight at Transonic Speeds. Sidney R. Alexander. RM L8H31a. Confidential. Released 11-17-48.

Investigation of a Thin Wing of Aspect Ratio 4 in the Ames 12-Foot Pressure Wind Tunnel. III - The Effectiveness of a Constant-Chord Aileron. Ben H. Johnson, Jr. and Fred A. Demele. RM A8I17. Confidential. Released 11-18-48.

Investigation of Two Pitot-Static Tubes at Supersonic Speeds. Lowell E. Hasel and Donald E. Coletti. RM L8I02. Confidential. Released 11-18-48.

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Method for Calculating Flow Fields of Cowlings with Known Surface-Pressure Distributions. Robert W. Boswinkle, Jr. RM 18117. Restricted. Released 11-24-48.

Additional Free-Flight Tests of the Rolling Effectiveness of Several Wing-Spoiler Arrangements at High Subsonic, Transonic, and Supersonic Speeds. H. Kurt Strass. RM 18123. Confidential. Released 11-29-48.

December

Flight and Wind-Tunnel Investigation to Determine the Aileron Vibration Characteristics of 1/4-Scale Wing Panels of the Douglas D-558-2 Research Airplane. Ellwyn E. Angle and Reginald R. Lundstrom. RM 18109. Confidential. Released 12-2-48.

Surface-Pressure Distributions on a Systematic Group of NACA Air-Series Cowlings with and without Spinners. Robert W. Boswinkle, Jr. and Arvid L. Keith, Jr. RM 18124. Restricted. Released 12-2-48.

Design Data for Graphical Construction of Two-Dimensional Sharp-Edge-Throat Supersonic Nozzles. Harold Shames and Ferris L. Seasholtz. RM 18112. Unclassified. Released 12-3-48.

Effects of a Sweptback Hydrofoil on the Force and Longitudinal Stability Characteristics of a Typical High-Speed Airplane. Raymond B. Wood. RM 18130a. Confidential. Released 12-3-48.

Aerodynamic Characteristics at Subsonic and Supersonic Mach Numbers of a Thin Triangular Wing of Aspect Ratio 2. II - Maximum Thickness at Midchord. Harold J. Walker and Robert E. Berggren. RM 18120. Confidential. Released 12-3-48.

Static Tests of Four Two-Blade NACA Propellers Differing in Camber and Solidity. Robert J. Platt, Jr. RM 18125a. Restricted. Released 12-6-48.

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The Effect of Negative Dihedral, Tip Droop, and Wing-Tip Shape on the Low-Speed Aerodynamic Characteristics of a Complete Model Having a 45° Sweptback Wing. RM L8J07. Restricted. Released 12-6-48.

Investigation of Horn Balances on a 45° Sweptback Horizontal Tail Surface at High Subsonic Speeds. Harold S. Johnson and Robert F. Thompson. RM L8J01. Confidential. Released 12-6-48.

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Downwash, Sidewash, and Wake Surveys Behind a 42° Sweptback Wing at a Reynolds Number of 6.8×10^6 with and without a Simulated Ground Plane. Chester Furlong and Thomas V. Bollech. RM L8G22. Restricted. Released 12-16-48.

Wind-Tunnel Investigation of Horizontal Tails. IV - Unswept Plan Form of Aspect Ratio 2 and a Two-Dimensional Model. Jules B. Dods, Jr. RM A8J21. Restricted. Released 12-16-48.

Longitudinal-Stability Investigation of High-Lift and Stall-Control Devices on a 52° Sweptback Wing with and without a Fuselage and Horizontal Tail at a Reynolds Number of 6.8×10^6 . Gerald V. Foster and James E. Fitzpatrick. RM L8I08. Restricted. Released 12-17-48.

Wind-Tunnel Investigation of Horizontal Tails. III - Unswept and 35° Swept-Back Plan Forms of Aspect Ratio 6. Jules B. Dods, Jr. RM A8H30. Released 12-20-48. Restricted.

Calculation of the Effects of Structural Flexibility on Lateral Control of Wings of Arbitrary Plan Form and Stiffness. Franklin W. Diederich. RM L8H24a. Released 12-27-48.

Calculation of the Aerodynamic Loading of Flexible Wings of Arbitrary Plan Form and Stiffness. Franklin W. Diederich. RM L8G27a. Released 12-27-48.

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An Investigation of Aileron Oscillations at Transonic Speeds on NACA 23012 and NACA 65-212 Airfoils by the Wing-Flow Method. Harold L. Crane. RM L8K29. Confidential. Released 1-3-49.

Summary of Results of Tumbling Investigations Made in the Langley 20-Foot Free-Spinning Tunnel on 14 Dynamic Models. Ralph W. Stone, Jr. and Robert L. Bryant. RM L8J28. Confidential. Released 1-4-49.

Effect of Wing Sweep, Taper, and Thickness Ratio on the Transonic Drag Characteristics of Wing Body Combinations. Jim Rogers Thompson and Charles W. Mathews. RM L8K01. Released 1-5-49. Confidential.

Initial Experiments on Flutter of Unswept Cantilever Wings at Mach Number 1.3. W. J. Tuoliva, John E. Baker, Arthur A. Regier. RM L8J11. Confidential. Released 1-6-49.

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Flight Tests at Transonic and Supersonic Speeds of an Airplane-Like Configuration with Thin Straight Sharp-Edge Wings and Tail Surfaces. Clarence L. Gillis and Jesse L. Mitchell. RM L8K04a. Confidential. Released 1-7-49.

Analytical Considerations Regarding a Control-Surface Balance Arrangement for Subsonic and Supersonic Flight. Thomas A. Toll and Glenn H. Adair. RM L8L01. Restricted. Released 1-7-49. *Forward for*

Langley Free-Flight Tunnel Investigation of the Automatic Lateral Stability Characteristics of a Model Equipped with a Gyro Stabilizing Unit That Provided Either Flicker-Type or Hunting Control. Robert O. Schade. RM L8K04. Confidential. Released 1-11-49.

Control Effectiveness and Hinge-Moment Measurements at a Mach Number of 1.9 of a Base Flap and Trailing-Edge Flap on a Highly Tapered Low Aspect-Ratio Wing. D. William Conner and Meade H. Mitchell, Jr. RM L8K17a. Released 1-11-49. Confidential.

Theoretical Analysis of the Rolling Motions of Aircraft Using a Flicker-Type Automatic Roll Stabilization System Having a Displacement-Plus-Rate Response. Howard J. Curfman, Jr. RM L8K23a. Confidential. Released 1-12-49.

Present Status of Application of Boundary-Layer Control in Aeronautics. Albert E. von Doenhoff and Laurence K. Loftin, Jr. RM L8J29. Confidential. Released 1-13-49.

Aerodynamic Characteristics at Subsonic and Transonic Speeds of a 42.7° Sweptback Wing Model Having an Aileron with Finite Trailing-Edge Thickness. Thomas R. Turner, Vernard E. Lockwood, and Raymond D. Vogler. RM L8K02. Confidential. Released 1-13-49.

Hinge-Moment Measurements of a Wing with Leading-Edge and Trailing-Edge Flaps at a Mach Number of 1.93. William B. Boatright and Robert W. Rainey. RM L8K12a. Confidential. Released 1-13-49.

Free-Flight Investigation at Transonic and Supersonic Speeds of the Rolling Effectiveness of Several Aileron Configurations on a Tapered Wing Having 42.7° Sweepback. Carl A. Sandahl. RM L8K23. Confidential. Released 1-13-49.

High-Speed Wind-Tunnel Investigation of a Sweptback Wing with an Added Triangular Area at the Center. Beverly Z. Henry. RM L8J12. Confidential. Released 1-17-49.

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An Investigation of the Characteristics of Three NACA 1-Series Nose Inlets At Subcritical and Supercritical Mach Numbers. Robert E. Pendley and Norman F. Smith. RM L8L06. Confidential. Released 1-17-49.

Response of a Rotating Propeller to Aerodynamic Excitation. Walter E. Arnold (Hamilton Standard Propellers). RM 8107. Restricted. Released 1-21-49. *no receipt for*

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back 51°. Investigation of a Large-Scale Model at Low Speed. Gerald M. McCormack and Walter C. Walling. RM A8D02. Confidential. Released 1-21-49.

Two-Dimensional Wind-Tunnel Investigation of Two NACA 6-Series Airfoils with Leading-Edge Slats. Stanley M. Gottlieb. RM L8K22. Released 1-21-49.

Pressure Distributions on Thin Conical Body of Elliptic Cross Section at Mach Number 1.89. Stephen H. Maslen. RM E8K05. Confidential. Released 1-21-49.

Experimental and Calculated Hinge Moments of Two Ailerons on a 42.7° Sweptback Wing at a Mach Number of 1.9. James C. Sivells and Kenneth L. Goin. RM L8K24a. Confidential. Released 1-21-49.

Investigation of a Thin Wing of Aspect Ratio 4 in the Ames 12-Foot Pressure Wind Tunnel. IV. - The Effect of a Constant-Chord Leading-Edge Flap at High Subsonic Speeds. Ben H. Johnson, Jr. and Verlin D. Reed. RM A8K19. Confidential. Released 1-24-49.

An Investigation of the Spin and Recovery Characteristics of a 1/25-Scale Model of the Douglas D-558-II Airplane. Stanley H. Scher and Lawrence J. Gale. RM L8K19a. Confidential. Released 1-24-49.

The Effect of Rate of Change of Angle of Attack on the Maximum Lift Coefficient of a Pursuit Airplane. Burnett L. Gadeberg. RM A8I30. Confidential. Released 1-24-49.

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back 61°. Characteristics at a Mach Number of 1.53 Including Effect of Small Variations of Sweep. Robert T. Midden. RM A8J04. Confidential. Released 1-25-49.

Lateral-Control Investigation on a 37° Sweptback Wing of Aspect Ratio 6 at a Reynolds Number of 6,800,000. Robert R. Graham and William Koven. RM L8K12. Restricted. Released 1-27-49. *no receipt for*

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Experimental Pressure Distributions over Wing Tips at Mach Number 1.9. I - Wing Tip with Subsonic Leading Edge. James M. Jagger and Harold Mirels. RM E8K26. Confidential. Released 1-27-49.

February

Two-Dimensional Aerodynamic Characteristics of 34 Miscellaneous Airfoil Sections. Laurence K. Loftin, Jr. and Hamilton A. Smith. RM L8L08. Released 2-1-49.

Heat-Transfer and Boundary-Layer Transition on a Heated 20° Cone at a Mach Number of 1.53. Richard Scherrer, William R. Wimbrow, and Forrest E. Gowen. RM A8L28. Confidential. Released 2-11-49.

Investigation of a Thin Straight Wing of Aspect Ratio 4 by the NACA Wing-Flow Method. - Lift and Pitching-Moment Characteristics of the Wing Alone. RM A8L20. Confidential. Released 2-14-49. *See A. Rother, Jr., Carl R. Hanson, & S. Stewart Collier*

Aerodynamic Characteristics of a Flying-Boat Hull Having a Length-Beam Ratio of 15 and a Warped Forebody. Richard G. MacLeod. RM L9A03. Released 2-14-49.

Preliminary Investigation of the Use of Afterglow for Visualizing Low-Density Compressible Flows. Thomas W. Williams and James M. Benson. RM L9A24a. Released 2-14-49.

Calculation of Aerodynamic Forces on a Propeller in Pitch and Yaw. John L. Crigler and Jean Gilman, Jr. RM L8K26. Restricted. Released 2-15-49. *No receipt for*

Flight Investigation of Flutter Models with 1/10-Scale Douglas D-558-2 Wing Panels. Jerome M. Teitelbaum. RM L9A06. Confidential. Released 2-16-49.

Determination of Rate, Area, and Distribution of Impingement of Waterdrops on Various Airfoils from Trajectories Obtained on the Differential Analyzer. A. G. Guibert, E. Janssen, and W. M. Robbins. (Univ. of California). Released 2-17-49.

Preliminary Wind-Tunnel Tests of Triangular and Rectangular Wings in Steady Roll at Mach Numbers of 1.62 and 1.92. Clinton E. Brown and Harry S. Heinke, Jr. RM L8L30. Confidential. Released 2-18-49.

Estimation of Lift and Drag of Airfoils at Near Sonic Speeds and in the Presence of Detached Shock Waves. John P. Mayer. RM L8L07. Confidential. Released 2-24-49.

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Wind-Tunnel Investigation of NACA 65,3-418 Airfoil Section with Boundary-Layer Control Through a Single Suction Slot Applied to a Plain Airfoil. Albert E. von Doenhoff and Elmer A. Horton. Released 2-24-49. RM L9A20.

Aerodynamic Characteristics of a Wing with Quarter-Chord Line Swept Back 45° , Aspect Ratio 4, Taper Ratio 0.6, and NACA 65A006 Airfoil Section. Transonic-Bump Method. Joseph H. Nell and Kenneth W. Goodson. RM L9A21. Confidential. Released 2-25-49.

Experimental Pressure Distribution on an Asymmetrical Non-Circular Body at Mach Number 1.90. DeMarquis D. Wyatt. RM E9B03. Confidential. Released 2-25-49.

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Investigation of Downwash and Wake Characteristics at a Mach Number of 1.53. 1. Rectangular Wing. Edward W. Perkins and Thomas N. Canning. RM A8L16. Confidential. Released 3-2-49.

Flight Investigations at Low Supersonic Speeds to Determine the Effectiveness of Cones and a Wedge in Reducing the Drag of Round-Nose Bodies and Airfoils. Sidney R. Alexander. RM L8LC7a. Confidential. Released 3-3-49.

Effect of Airfoil Profile of Symmetrical Sections on the Low-Speed Rolling Derivatives of 45° Sweptback-Wing Models of Aspect Ratio 2.61. William Letko and Jack D. Brewer. RM L8L31a. Restricted. Released 3-3-49. *No receipt*

Pressure-Distribution Measurements over an Extensible Leading-Edge Flap on Two Wings Having Leading-Edge Sweep of 42° and 52° . Reino J. Salmi. RM L9A18. Restricted. Released 3-7-49. *No receipt for*

Aerodynamic Characteristics of a 6-Percent-Thick Symmetrical Double-Wedge Airfoil at Transonic Speeds from Tests by the NACA Wing-Flow Method. Lindsay J. Lina. RM L9A12. Confidential. Released 3-8-49.

Full-Scale Investigation of a Wing with the Leading Edge Swept Back 47.5° and Having Circular-Arc and Finite-Trailing-Edge-Thickness Ailerons. Roy H. Lange. RM L9B02. Confidential. Released 3-10-49.

Low-Speed Investigation of Aileron and Spoiler Characteristics of a Wing Having 42° Sweepback of the Leading Edge and Circular Arc Airfoil Sections at Reynolds Numbers of Approximately 6.0×10^6 . Stanley H. Spooner and Robert L. Woods. Restricted. Released 3-10-49.

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Investigation at a Mach Number of 9.9 and a Reynolds Number
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on a Wing Having 13.7° Sweepback of the Leading Edge.
Kenneth L. Goin. RM 19A18a. Confidential. Released
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Research Memorandums

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Experimental Investigation at Supersonic Speeds of Twin-Scoop Duct Inlets of Equal Area. IV - Some Effects of Internal Duct Shape upon an Inlet Enclosing 37.2 Percent of the Forebody Circumference. Wallace F. Davis, Sherman S. Edwards, and George B. Brajnikoff. Confidential. Released 3-15-49. RM A9A31.

Preliminary Tank Investigation of the Use of Single Monoplane Hydrofoils for High-Speed Airplanes. Douglas A. King and John A. Rockett. Confidential. RM L9A17. Released 3-23-49.

Lateral and Directional Stability and Control Characteristics of a C-54D Airplane. Donald B. Talmage and John P. Reeder. RM L8K30. Released 3-24-49.

A Preliminary Experimental Investigation of a Submerged Cascade Inlet. R. Duane Christiani and Lauros M. Randall. Confidential. RM A9A24. Released 3-25-49.

Flight Investigation of 6.25-Inch-Diameter Deacon Rocket and 10-Inch-Scale Model Rocket. R. S. Watson. RM L8H26. Confidential. Released 3-25-49.

Some Wind-Tunnel Experiments on Single Degree of Freedom Flutter of Ailerons in the High Subsonic Speed Range. Sherman A. Clevenston. RM L9B08. Confidential. Released 3-30-49.

Effects of Wing-Tip Turrets on the Aerodynamic Characteristics of a Typical Bomber-Wing Model. Lee E. Boddy and Fred B. Sutton. RM A9B09. Confidential. Released 3-30-49.

Low-Speed Static Stability and Rolling Characteristics of Low-Aspect-Ratio Wings of Triangular and Modified Triangular Plan Forms. Byron M. Jaquet and Jack D. Brewer. RM L8L29. Restricted. Released 3-30-49. *For review*

Two-Dimensional Wind-Tunnel Investigation of Two NACA 7-Series Type Airfoils Equipped with a Slot-Lip Aileron, Trailing-Edge Frise Aileron, and a Double Slotted Flap. Albert L. Braslow and Riccardo Visconti. RM L9B23. Released 3-30-49.

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RM'sMarch (cont'd.)

Planing Characteristics of Three Surfaces Representative of Hydro-Ski Forms. Kenneth L. Wadlin and John R. McGehee. RM L9C03. Confidential. Released 3-31-49.

Hydrodynamic Characteristics of Aerodynamically Refined Planing-Tail Hulls. Robert McKann and Claude W. Coffee. RM L9B04. Confidential. Released 3-31-49.

April

High-Speed Wind-Tunnel Investigation of the Longitudinal Stability and Control Characteristics of a 1/16-Scale Model of the D-558-2 Research Airplane at High Subsonic Mach Numbers and at a Mach Number of 1.2. Robert S. Osborne. RM L9C04. Confidential. Released 4-7-49.

An Analysis of Available Data on Effects of Wing-Fuselage-Tail and Wing-Facelle Interference on the Distribution of the Air Load Among Components of Airplanes. Bertram C. Wollner. RM L9B10. Restricted. Released 4-12-49.

Measurements of Aerodynamic Characteristics of a 35° Swept-back NACA 65-009 Airfoil Model with 1/4-Chord Horn-Balanced Flap by the NACA Wing-Flow Method. Harold I. Johnson and B. Porter Brown. RM L9B23a. Confidential. Released 4-18-49.

Flight Measurement of the Stability Characteristics of the Douglas D-558-1 Airplane (BuAero No. 37971) in Sideslips. RM L8E14a. Confidential. Walter C. Williams. Released 4-19-49.

Continuation of Wing Flutter Investigation in the Transonic Range and Presentation of a Limited Summary of Flutter Data. William T. Lauten, Jr. and J. G. Barnby. RM L9B25b. Confidential. Released 4-20-49.

Analysis of the Effects of Various Mass, Aerodynamic, and Dimensional Parameters on the Dynamic Lateral Stability of the Douglas D-558-2 Airplane. M. J. Queijo and W. H. Michael, Jr. Confidential. RM L9A24. Released 4-20-49.

An Experimental Investigation of a Gyro-Actuated Roll Control System Installed in a Subsonic Test Vehicle. Jerome M. Teitelbaum and Ernest C. Seaberg. RM L9B24a. Confidential. Released 4-20-49.

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3.
RM'sApril (cont'd.)

Aerodynamic Characteristics of a Wing with Quarter-Chord Line Swept Back 35°, Aspect Ratio 4, Taper Ratio 0.6, and NACA 65A006 Airfoil Section Transonic-Bump Method. William C. Sleeman, Jr. and Robert E. Becht. RM L9B25. Confidential. Released 4-21-49.

Effects of High-Lift and Stall-Control Devices, Fuselage, and Horizontal Tail on a Wing Swept Back 42° at the Leading Edge and Having Symmetrical Circular-Arc Airfoil Sections at a Reynolds Number of 6.9×10^6 . Robert L. Woods and Stanley H. Spooner. RM L9B11. Restricted. Released 4-21-49. *No receipt for*

Chordwise and Spanwise Loadings Measured at Low Speed on Large Triangular Wings. Adrien E. Anderson. RM A9B17. Restricted. Released 4-21-49. *No receipt for*

Stability Results Obtained with Douglas D-558-1 Airplane (BuAero No. 37971) in Flight up to a Mach Number of 0.89. William H. Barlow and Howard C. Lilly. RM L8K03. Confidential. Released 4-21-49.

Comparison of Semi-Span Data Obtained in the Langley Two-Dimensional Low-Turbulence Pressure Tunnel and Full-Span Data Obtained in the Langley 19-Foot Pressure Tunnel for a Wing with 40° Sweepback of the 0.27-Chord Line. Jones F. Cahill. RM L9B25a. Restricted. Released 4-26-49. *No receipt for*

Study by NACA Wing-Flow Method of Transonic Drag Characteristics of a Blunt-Nose Body of Revolution and Comparison with Results for a Sharp-Nose Body. J. Ford Johnston and Mitchell Lopatoff. RM L9C11. Confidential. Released 4-29-49.

Investigations of an Annular-Diffuser-Fan Combination Handling Rotating Flow. Ira R. Schwartz. RM L9B28. Released 4-27-49.

May

Pressure-Distribution Data for the NACA 641-012 and 641A012 Airfoils at High Subsonic Mach Numbers. Milton D. Humphreys. RM L9C18. Confidential. Released 5-9-49.

An Electric Thrust Meter Suitable for Flight Investigation of Propellers. Porter J. Perkins, Jr. and Morton B. Mil-lenson. RM E9017. Released 5-10-49.

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May (cont'd.)

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back 63° . - Investigation at a Mach Number of 1.53 to Determine the Effects of Cambering and Twisting the Wing for Uniform Load at a Lift Coefficient of 0.25. Robert T. Madden. RM A9C07. Confidential. Released 5-10-49.

High-Subsonic Damping-in-Roll Characteristics of a Wing with the Quarter-Chord Line Swept Back 35° and with Aspect Ratio 3 and Taper Ratio 0.6. Boyd C. Myers, II and Richard E. Kuhn. RM L9C23. Confidential. Released 5-13-49.

Investigations at Supersonic Speeds of 22 Triangular Wings Representing Two Airfoil Sections for Each of 11 Apex Angles. - Eugene S. Love. RM L9D07. Confidential. Released 5-16-49.

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back 63° . - Effects of Split Flaps, Elevons, and Leading-Edge Devices at Low Speed. Edward J. Hopkins. RM A9C21. Confidential. Released 5-25-49.

Low-Speed Wind-Tunnel Investigation of the Longitudinal Stability Characteristics of a Model Equipped with a Variable-Sweep Wing. Charles J. Donlan and William C. Sleeman, Jr. RM L9B18. Restricted. Released 5-25-49.

June

Measurement of the Dynamic Lateral Stability of the Douglas D-558-1 Airplane (BuAero No. 37971) in Rudder Kicks at a Mach Number of 0.72. Hubert M. Drake. RM L9D06a. Confidential. Released 6-1-49.

Flight Investigation of the Jettisonable-Nose Method of Pilot Escape Using Rocket-Propelled Models. Reginald R. Lundstrom and Burke R. O'Kelly. RM L9D11. Confidential. Released 6-6-49.

Investigation of Downwash and Wake Characteristics at a Mach Number of 1.53. - II - Triangular Wing. Edward W. Perkins and Thomas N. Canning. RM A9D20. Confidential. Released 6-6-49.

The Effect of Air Jet and Strip Modifications on the Hydrodynamic Characteristics of the Streamline Fuselage of a Transonic Airplane. Bernard Weinflash, Kenneth W. Christopher, and Charles L. Shuford, Jr. RM L9D20. Confidential. Released 6-6-49.

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June (cont'd.)

Measured Characteristics of the Douglas D-558-1 Airplane (BuAero No. 37971) in Two Landings. RM L9D20a. Confidential. Released 6-6-49. Hubert M. Drake.

Preliminary Full-Scale Investigation of a 1/3-Scale Model of a Convertible-Type Airplane. Roy H. Lange, Bennie W. Cocke, Jr. and Anthony J. Proterra. RM L9C29. Released 6-8-49.

Wind-Tunnel Investigation at High Subsonic Speeds of the Lateral-Control Characteristics of an Aileron and a Stepped Spoiler on a Wing with Leading Edge Swept Back 51.3°. Leslie E. Schneider and John R. Hagerman. RM L9D06. Confidential. Released 6-9-49.

Estimated Transonic Flying Qualities of a Tailless Airplane Based on a Model Investigation. Charles J. Donlan and Richard E. Kumb. RM L9D08. Confidential. Released 6-9-49.

The Effect of Blade-Section Thickness Ratios on the Aerodynamic Characteristics of Related Full-Scale Propellers at Mach Numbers up to 0.65. Julian D. Maynard and Seymour Steinberg. RM L9D29. Confidential. Released 6-9-49.

Wind-Tunnel Investigation of Transonic Aileron Flutter. Albert L. Erickson and Robert L. Mannes. RM A9B28. Confidential. Released 6-13-49.

Effect of Temperature on Performance of Several Ejector Configurations. H. D. Wilsted, S. D. Huddleston, and C. W. Ellis. RM E9E16. Restricted. Released 6-15-49.

Preliminary Investigation of a Variable Mach Number Two-Dimensional Supersonic Tunnel of Fixed Geometry. William J. Nelson and Frederick Bloetscher. RM L9D29a. Confidential. Released 6-16-49.

Effects of Several Leading-Edge Modifications on the Stalling Characteristics of a 45° Swept-Forward Wing. Gerald M. McCormack and Woodrow L. Cook. RM A9D29. Released 6-17-49.

Criteria for Condensation-Free Flow in Supersonic Tunnels. Warren C. Burgess, Jr. and Ferris L. Seashore. RM E9E02. Confidential. Released 6-17-49.

June (cont'd.)

Measurements of Airfoil Effectiveness of Bell X-1 Airplane Up to a Mach Number of 0.82. Hubert M. Drake. RM L9D13. Confidential. Released 6-23-49.

The Effect of Span and Deflection of Split Flaps and Leading-Edge Roughness on the Longitudinal Stability and Gliding Characteristics of a 42° Sweptback Wing Equipped with Leading-Edge Flaps. RM L9E02. George L. Pratt and Thomas V. Bolisch. Restricted. Released 6-23-49.

Wind-Tunnel Investigation of a Tailless Triangular-Wing Fighter Aircraft at Mach Numbers from 0.5 to 1.5. Leslie F. Lawrence and James L. Summers. RM A9B16. Confidential. Released 6-24-49.

Effects of Mach Number and Sweep on the Damping-in-Roll Characteristics of Wings of Aspect Ratio 4. Richard E. Kuhn and Boyd C. Myers, II. RM L9E10. Confidential. Released 6-29-49.

Effects of Various Outboard and Central Fins on Low-Speed Static-Stability and Rolling Characteristics of a Triangular-Wing Model. Byron M. Jaquet and Jack D. Brewer. RM L9E18. Restricted. Released 6-30-49.

July

A Flight Investigation of the Effect of Flap Deflection on High-Speed Longitudinal-Control Characteristics. Maurice E. White, Melvin Sadoff, Lawrence A. Clousing, and George E. Cooper. RM A9D08. Restricted. Released 7-1-49.

The Aerodynamic Characteristics Throughout the Subsonic Speed Range of a Thin Sharp-Edged Horizontal Tail of Aspect Ratio 4 Equipped with a Constant-Chord Elevator. Angelo Bandettini and Verlin D. Reed. RM A9E05. Confidential. Released 7-5-49.

Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back 63°. - Characteristics for Symmetrical Wing Sections at High Subsonic and Moderate Supersonic Mach Numbers. Newton A. Mas. RM A9E09. Confidential.

Tests of the NACA 64-010 and 64A010 Airfoil Sections at High Subsonic Mach Numbers. RM A9E31. Restricted. Albert D. Hemenover. Released 7-12-49.

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SEP 21 1951

SECRET
Secret Research Memorandums released to Dr. Von Karman.

<u>Cover No.</u>	<u>Code No.</u>	<u>Date of Release</u>	<u>Location</u>
	RM L8I29	10-13-48	Scientific Advisory Bd., USAF, Wash., D.C.
6	RM L8I28	11-16-48	Scientific Advisory Bd., USAF, Wash., D.C.
	RM L8K05	11-19-48	Scientific Advisory Bd., USAF, Wash., D.C.

Receipt forms attached.

- RM L8I29 entitled "Preliminary Results of NACA Transonic Flights of the XS-1 Airplane with 10-Percent-Thick Wing and 8-Percent-Thick Horizontal Tail" by Hubert M. Drake, Harold R. Goodman and Herbert H. Hoover. (Classification reduced to Confidential 5-15-51)
- RM L8I28 entitled "Results Obtained During Extension of U. S. Air Force Transonic-Flight Tests of XS-1 Airplane" by Harold R. Goodman and Hubert M. Drake. (Classification reduced to Confidential 5-15-51)
- RM L8K05 entitled "Drag Measurements in Flight on the 10-Percent-Thick and 8-Percent-Thick Wing X-1 Airplanes" by John J. Gardner. (Classification reduced to Confidential 5-15-51)

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SAC, NEW YORK (65-15387)

January 4, 1952

RECORDED - 53

DIRECTOR, FBI (65-59312)-617

WILLIAM PERL, aka
ESPIONAGE - R
PERJURY

Reference is made to Washington Field Office letter dated December 12, 1951, transmitting to the Bureau 337 items consisting of National Advisory Committee for Aeronautics (NACA) reports and other material removed from the office of Dr. Theodore Von Karman at Columbia University for appropriate laboratory examination.

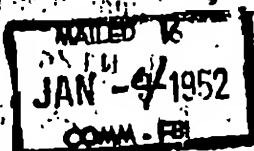
For the information of your office, as well as the Los Angeles Office, there is being forwarded herewith a photostatic list of the 337 items submitted to the Bureau as an enclosure to referenced letter.

cc: Los Angeles (65-5075) (Enclosure)

cc: Washington Field (65-5543)

Enclosure

RFE:hc



62 JAN 16 1952

65-59312-617

Office Memorandum

SECRET - INFORMATION - CONFIDENTIAL
UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (65-59312)

DATE: December 12, 1951

FROM : SAC, WFO (65-5543)

ATTENTION: FBI LABORATORY

SUBJECT: WILLIAM PERL, aka.,
ESPIONAGE - R
PERJURY

147633

Reference is made to WFO letter to the Bureau dated November 30, 1951, submitting 336 items consisting of NACA reports and other material removed from the office of Dr. VON KARMAN at Columbia University.

Major MARK P. MAIER, Deputy Secretary, Scientific Advisory Board, Office of the Chief of Staff, Pentagon, has since located and made available the following attached items which were also removed from Dr. VON KARMAN's office at the same time as the other material:

Project Squid — Technical Library Information Confidential
Reports — Issues number 26, 36, 35, 34, 33,
28, 29, 27, 25, 24, 23, 20, 22, 21.

Five Graphs bound in brown cover described as follows:

Graph No. 1 - Effect of sweepback on Drag MA 1.72 APG SSWTL
ECW 11-4-45.

Graph No. 2 - Effect of sweepback on Lift & Moment MA 1.72.

Graph No. 3 - Effect of sweepback on Drag Wing Only MA 1.72
APG SSWTL EPR 11-4-45.

Graph No. 4 - Effect of sweepback on CL CMO Wing Only; MA 1.72;
APG, SSWTL, APF, 12-4-45.

Graph No. 5 - Effect of sweepback on CL/CD MA 1.72 Wing Only;
APG, SSWTL WHB 11 APR 45.

The above items are submitted for the following examination:

(1) To determine, if possible, whether any of the various items have been taken apart for photographing and then re-assembled.

(2) To determine whether or not any of the items contain the latent fingerprints of the following individuals:

WILLIAM PERL
JULIUS ROSENBERG
MICHAEL ALEXANDER SIDOROVICH
MAXWELL WINSTONE

APPROPRIATE AGENCIES
AND FIELD OFFICES
ADVISED BY ROUTING
SLIP(S) OF
DATE 2/1/58

ENCL

MHS/mmd

ENCLOSURE

CC - NEW YORK (65-15387)

CC - LOS ANGELES (65-5075)

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INDEXED - 53

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DEC 18 1951

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Let to Director
Re: WILLIAM PERL

Major MAIER has advised he does not desire the return of any of this material and, accordingly, it may be destroyed, if necessary, during the Laboratory examination.

IDENTIFICATIONDATECLASSIFICATION

✓1. NACA TN No. 1574	April 48	U
✓2. NACA RM No. L7k17a	6 Apr 48	U
✓3. NACA TN No. 1572	May 1948	U
✓4. NACA TN No. 1581	May 1948	U
✓5. NACA TN No. 1582	May 1948	U
✓6. NACA TN No. 1186	May 1948	U
✓7. NACA TN No. 1125	Apr 1948	U
✓8. NACA TN No. 995	May 1946	U
✓9. NACA TN No. 1577	April 48	U
✓10. NACA TN No. 1176	May 1948	U
✓11. NACA TN No. 1189	Apr 1948	U
✓12. NACA TN No. 1545	Apr 1948	U
✓13. NACA RM No. L8m18	21 May 48	U
✓14. NACA TN No. 1575	May 1948	U
✓15. NACA TN No. 1137	Oct 1947	U
✓16. NACA TN No. 1190	Oct 1947	U
✓17. NACA TN No. 1178	Oct 1947	U
✓18. NACA TN No. 1185	Oct 1947	U
✓19. NACA TN No. 1585	May 1948	U
✓20. NACA TN No. 1598	May 1948	U
✓21. NACA RM No. A8C25	24 May 48	U
✓22. NACA RM No. A8E03	21 Sep 48	R
✓23. NACA TN No. 1700	Sep 1948	U
✓24. NACA RM No. L8F21	19 Jul 48	R
✓25. NACA RM No. A8F21	21 Sep 48	R
✓26. NACA RM No. L8E24	2 Sep 48	R
✓27. NACA RM No. L8D29	2 Sep 48	R

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✓28.	NACA RM No. L8F04	7 Sep 48	R
✓29.	NACA RM No. L8C26	22 Sep 48	R
✓30.	NACA RM No. L8F29	21 Jul 48	R
✓31.	NACA RM No. L8C22	23 Jul 48	R
✓32.	NACA RM No. L8F12	22 Jul 48	R
✓33.	NACA RM No. L7I24	7 Jul 48	R
✓34.	NACA RM No. L7L29	20 Jul 48	R
✓35.	NACA RM No. L8D01	30 Aug 48	R
✓36.	NACA RM No. A7K03	27 Aug 48	R
✓37.	NACA RM No. L8C15	30 Aug 48	R
✓38.	NACA RM No. L8E06	31 Aug 48	R
✓39.	NACA RM No. L7K20	9 Jul 48	R
✓40.	NACA RM No. L8E12	21 Jul 48	R
✓41.	NACA RM No. L8A21	14 June 48	R
✓42.	NACA RM No. A7L31	3 June 48	R
✓43.	NACA RM No. E8A28	8 June 48	R
✓44.	NACA RM No. E8A27	28 May 48	R
✓45.	NACA RM No. E8A29	8 June 48	R
✓46.	NACA RM No. L8J13	31 Aug 48	R
✓47.	NACA RM No. L8F17	1 Sep 48	R
✓48.	NACA RM No. L7K28	30 June 48	R
✓49.	NACA RM No. A8B11	3 June 48	R
✓50.	NACA RM No. L6L23	16 June 47	R
✓51.	NACA RM No. A7K24	22 Apr 48	R
✓52.	NACA RM No. L8A09	19 Apr 48	R
✓53.	NACA RM No. L6L27	26 May 47	R
✓54.	NACA RM No. L7H15	15 Oct 47	R
✓55.	NACA RM No. L7M28	17 Oct 47	R

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✓56.	NACA RM No. L7D11	25 June 47	R
✓57.	NACA RM No. L7009	14 Oct 47	R
✓58.	NACA RM No. L7E23a	11 June 47	R
✓59.	NACA RM No. A7C31	9 June 47	R
✓60.	NACA RM No. L7031	17 Oct 47	R
✓61.	NACA RM No. A7K05	22 Jan 48	R
✓62.	NACA RM No. L7D11	23 May 47	R
✓63.	NACA RM No. L7E13	10 June 47	R
✓64.	NACA RM No. L7E09	22 May 47	R
✓65.	NACA RM No. L7D23	22 May 47	R
✓66.	NACA RM No. L7D11a	12 June 47	R
✓67.	NACA RM No. A7L05	2 Feb 48	R
✓68.	NACA RM No. L8A15	5 May 48	R
✓69.	NACA RM No. L7I07	10 May 48	R
✓70.	NACA RM No. L8A15a	7 May 48	R
✓71.	NACA RM No. L7H04	22 Oct 47	R
✓72.	NACA RM No. L7H12	6 Oct 47	R
✓73.	NACA RM No. L8D02	25 May 48	C
✓74.	NACA RM No. L8A28	24 May 48	C
✓75.	NACA RM No. A8E17	23 Jul 48	C
✓76.	NACA RM No. L8E28	21 Jul 48	C
✓77.	NACA RM No. L8C24	20 Jul 48	C
✓78.	NACA RM No. L8B03	19 Jul 48	C
✓79.	NACA RM No. L8E10	23 Jul 48	C
✓80.	NACA RM No. L8A28a	20 Jul 48	C
✓81.	NACA RM No. A8E04	22 Jul 48	C
✓82.	NACA RM No. L8E04	21 Jul 48	C

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✓83.	NACA RM No. L8A28b	22 Jul 48	C
✓84.	NACA RM No. L8B13	21 Jul 48	C
✓85.	NACA RM No. A8D27	12 Jul 48	C
✓86.	NACA RM No. L8K11	14 Jul 48	C
✓87.	NACA RM No. L8D28	9 Sep 48	C
✓88.	NACA RM No. E8F15	15 Sep 48	C
✓89.	NACA RM No. L7K07	13 Jan 48	R
✓90.	NACA RM No. L7B23	13 Nov 47	R
✓91.	NACA RM No. A7F06	12 Nov 47	R
✓92.	NACA RM No. A7D10	29 Aug 47	R
✓93.	NACA RM No. A7B28	17 Jul 47	R
✓94.	NACA RM No. A6H19	18 Jul 47	R
✓95.	NACA RM No. A7D11	30 Jul 47	R
✓96.	NACA RM No. A7126	16 Dec 47	R
✓97.	NACA RM No. L7H19	17 Oct 47	R
✓98.	NACA RM No. L7L12	13 Apr 48	R
✓99.	NACA RM No. L7I09	4 Feb 48	R
✓100.	NACA RM No. L7J21	29 Jan 48	R
✓101.	NACA RM No. L7J22	12 Jan 48	R
✓102.	NACA RM No. A7H28	10 Dec 47	R
✓103.	NACA RM No. L7130	10 Dec 47	R
✓104.	NACA RM No. L7J03	19 Dec 47	R
✓105.	NACA RM No. L8F24	24 Aug 48	C
✓106.	NACA RM No. L8B18	22 Jul 48	C
✓107.	NACA RM No. L8B19	23 Jul 48	C
✓108.	NACA RM No. A7L11	9 Aug 48	C
✓109.	NACA RM No. L8D16	27 Aug 48	C

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✓110. NACA RM No. L8F23	23 Aug 48	C
✓111. NACA RM No. L8E27	11 Aug 48	C
✓112. NACA RM No. L8B20	28 Jul 48	C
✓113. NACA RM No. A8C03	24 Aug 48	C
✓114. NACA RM No. A8F08	9 Aug 48	C
✓115. NACA RM No. L8F08	7 Sep 48	C
✓116. NACA RM No. L8D21	7 Sep 48	C
✓117. NACA RM No. L8A28a	21 Sep 48	C
✓118. NACA RM No. L8C12	11 May 48	C
✓119. NACA RM No. A8B05	7 May 48	C
✓120. NACA RM No. E7K19	3 May 48	C
✓121. NACA RM No. L8A05	21 Apr 48	C
✓122. NACA RM No. E6K27	17 June 47	C
✓123. NACA RM No. L7E08	20 June 47	C
✓124. NACA RM No. L7K06	4 Feb 46	R
✓125. NACA RM No. L7E20	2 Mar 48	R
✓126. NACA Conference on Aero- dynamic Problems of Transonic Airplane Design	5-6 Nov 47	C
✓127. NACA Conference on Acft Loads	18-19 Feb 48	C
✓128. NACA RM No. L8A05a	19 Apr 48	C
✓129. NACA RM No. E7I05	13 Feb 48	C
✓130. NACA RM No. E7I30	18 Feb 48	C
✓131. NACA RM No. L7F19	12 Aug 47	C
✓132. NACA RM No. A7J02	18 Feb 48	C
✓133. NACA RM No. L7F16	5 Aug 47	C
✓134. NACA RM No. L7002	28 Aug 47	C
✓135. NACA RM No. L7F13	5 Aug 47	C

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✓136.	NACA RM No. L7E26	13 Jul 47	C
✓137.	NACA RM No. L7E19	26 June 47	C
✓138.	NACA RM No. E7C26	25 June 47	C
✓139.	NACA RM No. E7F13	13 Aug 47	C
✓140.	NACA RM No. L6J18a	19 Aug 47	C
✓141.	NACA RM No. L6J01b	7 Aug 47	C
✓142.	NACA RM No. A7I10	19 Dec 47	C
✓143.	NACA RM No. L7D22	6 June 47	C
✓144.	NACA RM No. L7D03	6 June 47	C
✓145.	NACA RM No. L7I26	6 Feb 48	C
✓146.	NACA RM No. L8B26	25 June 48	C
✓147.	NACA RM No. L8A12	23 June 48	C
✓148.	NACA RM No. L8B14	24 June 48	C
✓149.	NACA RM No. L8A23	23 June 48	C
✓150.	NACA RM No. E7K21	11 June 48	C
✓151.	NACA RM No. L8B06	15 June 48	C
✓152.	NACA RM No. A8B06	21 June 48	C
✓153.	NACA RM No. A8A20	2 June 48	C
✓154.	NACA RM No. L8A28c	3 June 48	C
✓155.	NACA RM No. A8C11	9 June 48	C
✓156.	NACA RM No. A8B16	9 June 48	C
✓157.	NACA RM No. A8C22	10 June 48	C
✓158.	NACA RM No. L7J14	9 Mar 48	C
✓159.	NACA RM No. A7I16	21 Jan 48	P
✓160.	NACA RM No. A7F30	16 Dec 47	C
✓161.	NACA RM No. L7J10	11 Dec 47	C
✓162.	NACA RM No. L7E12	26 May 47	C
✓163.	NACA RM No. L7C11	4 Aug 47	C

<u>IDENTIFICATION</u>	<u>DATE</u>	<u>CLASSIFICATION</u>
✓164. NACA RM No. A8E05	28 June 48	C
✓165. NACA RM No. A7L24	28 May 48	C
✓166. NACA Summary of Recommendations on Research Problems of Transonic Aft Design	Jul 48	C
✓167. NACA RM No. L8D19	7 Jul 48	C
✓168. NACA RM No. L6I13	24 Jul 47	C
✓169. NACA RM No. A7I30	8 Jan 48	C
✓170. NACA RM No. L7F30	13 Aug 47	C
✓171. NACA RM No. L6I10	12 June 47	C
✓172. NACA RM No. L7J20	4 Mar 48	C
✓173. NACA RM No. L7L22	20 Apr 48	C
✓174. NACA RM No. L7L01	23 Apr 48	C
✓175. NACA RM No. L7J15	31 Dec 47	C
✓176. NACA RM No. A8D07	2 June 48	C
✓177. NACA RM No. L7J08	29 June 48	C
✓178. NACA RM No. L8C11	30 June 48	C
✓179. NACA RM No. L7I01	8 Dec 47	C
✓180. NACA RM No. A7I29	11 Dec 47	C
✓181. NACA RM No. L7K10	14 Jan 48	C
✓182. NACA RM No. A7J23	31 Dec 47	C
✓183. NACA RM No. A7J27	21 Jan 48	C
✓184. NACA RM No. A7J05	23 Jan 48	C
✓185. NACA RM No. L7K14	9 Feb 48	C
✓186. NACA RM No. L8A30a	13 Apr 48	C
✓187. NACA RM No. A7C10	6 Nov 47	C
✓188. NACA RM No. L7H11	10 Nov 47	C
✓189. NACA RM No. L7H26	12 Nov 47	C
✓190. NACA RM No. A7018	14 Nov 47	C

IDENTIFICATION	DATE	CLASSIFICATION
✓ 191. NACA RM No. A7J03	23 Apr 48	C
✓ 192. NACA RM No. L8A28a	13 May 48	C
✓ 193. NACA RM No. L7K24	12 May 48	C
✓ 194. NACA RM No. L8A07	17 May 48	C
✓ 195. NACA RM No. L8A22	17 May 48	C
✓ 196. NACA RM No. A7L02	30 Apr 48	C
✓ 197. NACA RM No. E7L23	30 Apr 48	C
✓ 198. NACA RM No. L7K17	6 May 48	C
✓ 199. NACA RM No. A7H19	2 Oct 47	C
✓ 200. NACA RM No. L7I15	19 Dec 47	C
✓ 201. Tech Rpt No. F-TR-2140-ND OS--AAF--Wright Fld No. 7	May 47	R
✓ 202. Translation Rpt No. F-IS-1025-RE	Jan 47	R
✓ 203. AAF Translation Rpt No. F-TS-702-RE	Jan 47	R
✓ 204. Translation Rpt No. F-TS-2110-RE	May 47	R
✓ 205. Translation RPT No. F-TS-2106-RE	May 47	R
✓ 206. Translation Rpt No. F-TR-2105-RE	May 47	R
✓ 207. Tech Rpt No. F-TR-2107-ND	Dec 46	R
✓ 208. Tech Rpt No. F-TR-2137-ND OS--AAF--Wright Fld No. 20	May 47	R
✓ 209. Tech Rpt No. F-TR-1140-ND	Mar 47	R
✓ 210. Translation Rpt No. F-TS-2139-RE	May 47	R
✓ 211. Tech Rpt No. F-TR-2102-ND	Jan 47	R
✓ 212. Tech Rpt No. F-TR-2121-ND	Dec 46	R
✓ 213. Tech Rpt No. F-TR-2126-ND	Dec 46	R
✓ 214. Tech Rpt No. F-TR-2123-ND	Jan 46	R

IDENTIFICATION	DATE	CLASSIFICATION
✓ 215. Interim Rpt No. F-IV-2124-ED Jan 47		R
✓ 216. Translation Rpt No. F-TS-2119-RE May 47	May 47	R
✓ 217. Translation Rpt No. F-TS-1105-RE May 47	May 47	R
✓ 218. Translation Rpt No. F-TS-1116-RE June 47	June 47	R
✓ 219. Interim Rpt No. F-IV-2135A-ND Feb 47	Feb 47	R
✓ 220. Staff Study No. A-89-2130-ND Jan 47	Jan 47	R
✓ 221. NACA RM No. L6K10a 18 Jul 47	18 Jul 47	C
✓ 222. NACA RM No. L7D21 21 June 47	21 June 47	C
✓ 223. NACA RM No. L6K21 28 Mar 47	28 Mar 47	C
✓ 224. NACA RM No. L7K12 5 Mar 48	5 Mar 48	C
✓ 225. NACA RM No. A7K28 14 Apr 48	14 Apr 48	C
✓ 226. NACA RM No. L7K03 15 Apr 48	15 Apr 48	C
✓ 227. NACA RM No. L7D02 29 May 47	29 May 47	C
✓ 228. NACA RM No. L7I04 26 Nov 47	26 Nov 47	C
✓ 229. NACA RM No. A7I06 5 Dec 47	5 Dec 47	C
✓ 230. Prog Rpt Bur Aero NACA Committee on Aerodynamics 13 Oct 47	13 Oct 47	C
✓ 231. Prog Rpt Aero Invest at Ames Aero Laboratory 30 Oct 47	30 Oct 47	C
✓ 232. NACA Min of Meet Subcom on Stability & Control 7 Nov 47	7 Nov 47	C
✓ 233. NACA Min of Meet Subcom on High-Speed Aerodynamics 25 Mar 48	25 Mar 48	C
✓ 234. NACA Min of Meet Subcom on High-Speed Aerodynamics 28 Oct 47	28 Oct 47	C
✓ 235. Prog Rpt AMC Activities of Interest to NACA 14 Oct 47	14 Oct 47	C
✓ 236. NACA Min of Meet Committees on Aerodynamics 19 Jul 48	19 Jul 48	C
✓ 237. NACA Min of Meet Spec Subcom on Resch Prblms of Transonic 8-9 Jul 48	8-9 Jul 48	C

<u>IDENTIFICATION</u>	<u>DATE</u>	<u>CLASSIFICATION</u>
✓ 238. NACA Min of Meet Subcom Stability & Control	30 June 48	C
✓ 239. Natl Program of Transonic & Supersonic Wind Tunnels	Jan 47	C
✓ 240. Notes on Aero Research for NACA Com Meet	11 Feb 48	C
✓ 241. Boeing Ltr E-70-513	14 Oct 47	C
✓ 242. Prog Rpt Bur of Aero to NACA Com on Aerodynamics	30 Jan 48	C
✓ 243. Project Squid (Princeton U) No. 59		C
✓ 244. NACA Wartime Rpt Release List No. 2	31 Jan 47	U
✓ 245. NACA Tech Notes M.L. 253 (Index to NACA Publns)	30 Apr 48	R
✓ 246. Squid Abstracts No. 62		C
✓ 247. Index of NACA Classified Publications, 1915-1947	31 Dec 47	
✓ 248. Prog Rpt of Langley Mem Aero Lab	30 Oct 47	C
✓ 249. NACA Min of Meet Com on Aerodynamics	30 Oct 47	C
✓ 250. Prog Rpt of Langley Mem Aero Lab	11 Feb 48	C
✓ 251. Bal Research Lab Rpt No. 620	Oct 47	R
✓ 252. Ltr forwarding ERL & ORIN Rpts	25 Apr 48	R
✓ 253. Memo Rpt No. 435	1 Jul 46	R
✓ 254. Staff Study No. A-83-2129-ND	Jan 47	R
✓ 255. Bibliography No. 1	21 May 46	R
✓ 256. Swept-Back Wing	Sep 46	R
✓ 257. Staff Study No. A-83-2128-ND	Jan 47	R
✓ 258. NACA DV No. A7025	5 Nov 47	R

IDENTIFICATION	DATE	CLASSIFICATION
✓ 259. NACA RM No. A7H13	13 Nov 47	R
✓ 260. NACA RM No. A7F12	4 Aug 47	R
✓ 261. NACA RM No. L7F04a	9 Jan 48	R
✓ 262. NACA RM No. A7J13	9 Jan 48	R
✓ 263. List of Air Tech Pub	June 47	U
✓ 264. Joint AAN List of Completed Translations		U
✓ 265. Tech Rpt No. F-TR-2154-ND	Apr 47	U
✓ 266. NACA Wartime Rpt Release list No. 20	30 Apr 48	U
✓ 267. NACA Wartime Rpt Release list No. 21	28 May 48	U
✓ 268. Prog Rpt, Chance Vought	16 Oct 47	C
✓ 269. Proj Squid Bulletin No. 2	1 May 48	R
✓ 270. Joint AAN List of Completed Translations Supplement No. 6	1 Jan 48	R
✓ 271. Joint AAN List of Comp Trans Supplement No. 1	1 Oct 46	R
✓ 272. Joint AAN List of Comp Trans Supplement No. 2	1 Dec 46	R
✓ 273. Joint AAN List Supplement No. 5	1 Jul 47	R
✓ 274. Joint AAN List Supplement No. 4	15 Apr 47	R
✓ 275. List of Air Tech Publs	June 47	R
✓ 276. NACA Min of Meet Com on Aerodynamics	11 Feb 48	C
277. Tech Rpt No. A7H13	13 Nov 47	R
✓ 277. NACA Wartime Rpt Release list No. 7	31 Mar 47	U
✓ 278. Bal Research Lab Prog Rpt	Jul 48	C
✓ 279. Squid Abstracts No. 60		C

IDENTIFICATION	DATE	CLASSIFICATION
✓280. Bal Research Lab Prog Rpt	May 48	C
✓281. Bal Research Lab Prog Rpt	Apr 48	C
✓282. TSEM Rpt No. 12	6 Feb 48	C
✓283. Translation Rpt No. F-TS-796-RE	June 47	R
✓284. Squid Abstracts No. 49		C
✓285. Squid Abstracts No. 51		C
✓286. Squid Abstracts No. 50		C
✓287. Squid TL Info No. 96		C
✓288. Squid TL Info No. 37		C
✓289. Squid TL Info No. 38		C
✓290. Squid TL Info No. 39		C
✓291. Squid Abstracts No. 53		C
✓292. Squid Abstracts No. 61		C
✓293. Squid Abstracts No. 63		C
✓294. Squid Abstracts No. 64		C
✓295. Squid Abstracts No. 50		C
✓296. Squid Abstracts No. 7		C
✓297. Squid Abstracts No. 47		C
✓298. Squid Abstracts No. 54		C
✓299. Squid Abstracts No. 48		C
✓300. NACA Tech Note No. 1566	Apr 48	U
✓301. Tech Rpts of Materiel Center, Annual Index	Jan-Dec 41	R
✓302. NACA Tech Notes	23 Feb 47	U
✓303. NACA Wartime Rpt Release List No. 10	30 June 47	U
✓304. Squid Policy Committee Meet Minutes	25 Jul 47	U
✓305. Rpt on Propulsion Testing Facilities	20 Jul 47	U

IDENTIFICATIONDATECLASSIFICATION

✓ 306.	NACA Wartime Rpt Release No. 11	31 Jul 47	U
✓ 307.	NACA Tech Notes	31 Jul 47	U
✓ 308.	NACA Wartime Rpt Release List No. 8	28 Feb 47	U
✓ 309.	NACA Wartime Rpt Release List No. 5	31 Jan 47	U
✓ 310.	NACA Wartime Rpt Release List No. 4	31 Jan 47	U
✓ 311.	NACA Wartime Rpt Release List No. 3	31 Jan 47	U
✓ 312.	Prog Rpt, Com on Aerody	11 Feb 48	C
✓ 313.	Squid Abstracts No. 42		C
✓ 314.	Squid Abstracts No. 43		C
✓ 315.	Squid Abstracts No. 57		C
✓ 316.	Squid Abstracts No. 52		C
✓ 317.	Squid Abstracts No. 45		C
✓ 318.	Squid Abstracts No. 46		C
✓ 319.	Squid Abstracts No. 44		C
✓ 320.	Squid TL Info No. 40		C
✓ 321.	Mem to Chief, RAD Dir	13 June 47	C
✓ 322.	NACA RM No. L7K13	25 May 48	R
✓ 323.	Joint AON List List of Translations No. 3	15 Feb 47	R
✓ 324.	Squid Abstracts No. 65		C
✓ 325.	Squid Abstracts No. 66		C
✓ 326.	Prop Pilot Tunnel for AAF EDC		C
✓ 327.	Bal Research Lab Prog Rpt	June 48	C
✓ 328.	Bal Research Lab Prog Rpt	Aug 48	C
✓ 329.	USN Squid TR No. 8	15 May 48	C
✓ 330.	Rpt No. RA-8536	9 Mar 45	U

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✓ 331. Miscellaneous Ltrs of Trans-
mittal & Abstract Sheets
Aberdeen Research Lab

R

✓ 332. Unidentified Index Sheets

S U

✓ 333. Miscellaneous Ltrs of Trans-
mittal, Indexes, Abstracts

C

✓ 334. Reference Text on Jet
Propulsion

1946

R

335. Reference Text on Jet
Propulsion (same as abv)

1946

R

11-28-51
Not Rec'd. in permanent
major history

✓ 336. NACA RM No. A8A13

1 Apr 48

C

337

Two Stenographic Books
Containing Notes -

NOT PROPRIETARY
INFORMATION

CLASSIFIED DOCUMENT

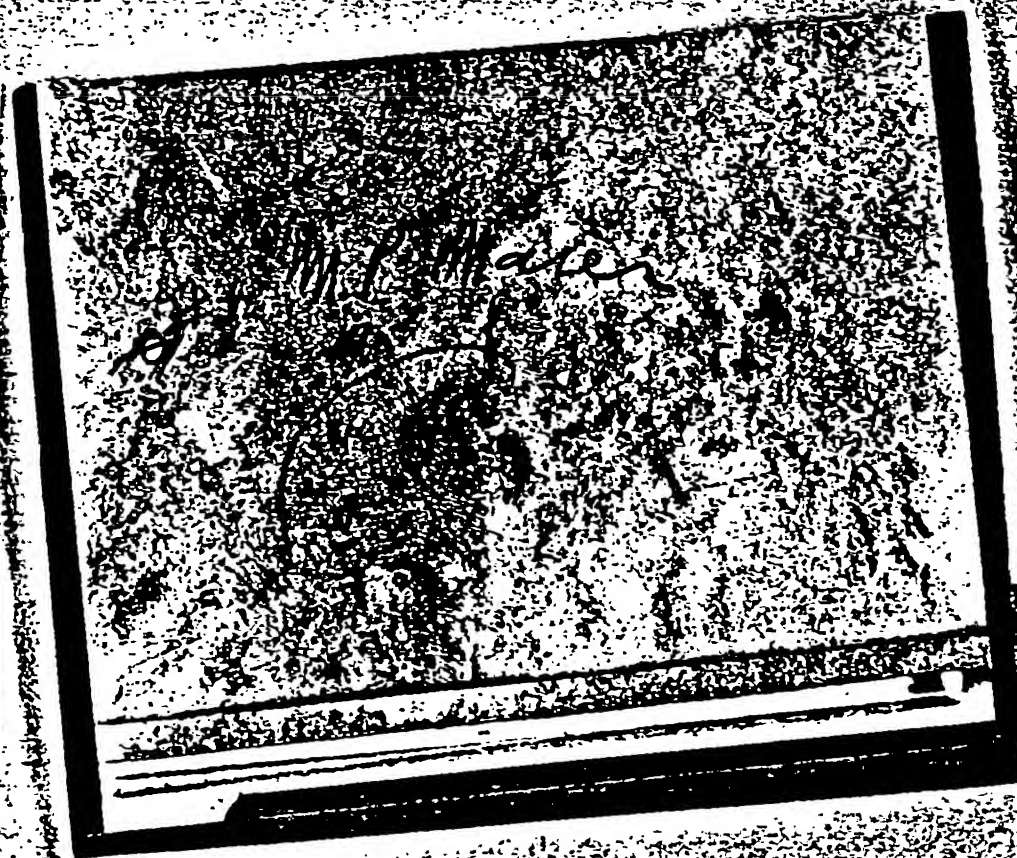
This document contains classified information relating to the National Defense of the United States within the meaning of the Espionage Act, 1879, 50 USC and 50. The transmission or the revelation of its contents in any manner to unauthorized persons is prohibited by law. Information so classified may be disclosed only to persons in the military and naval services of the United States, and to civilian officers and employees of the Department of Defense, and to United States citizens of known loyalty and character who are planning to be employed thereon.

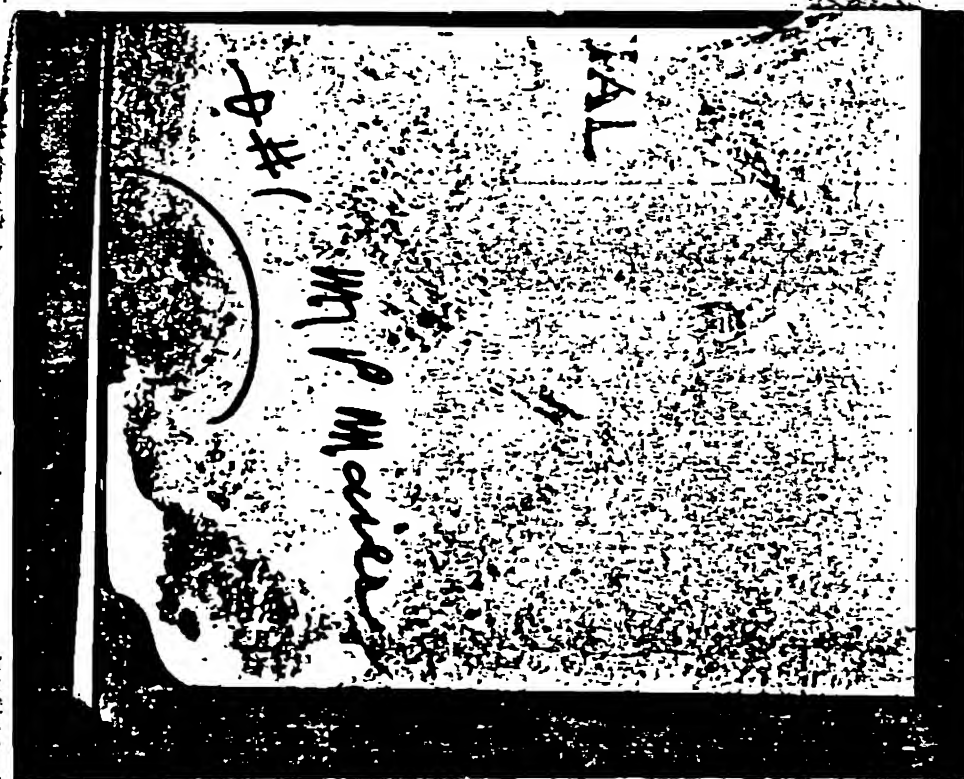
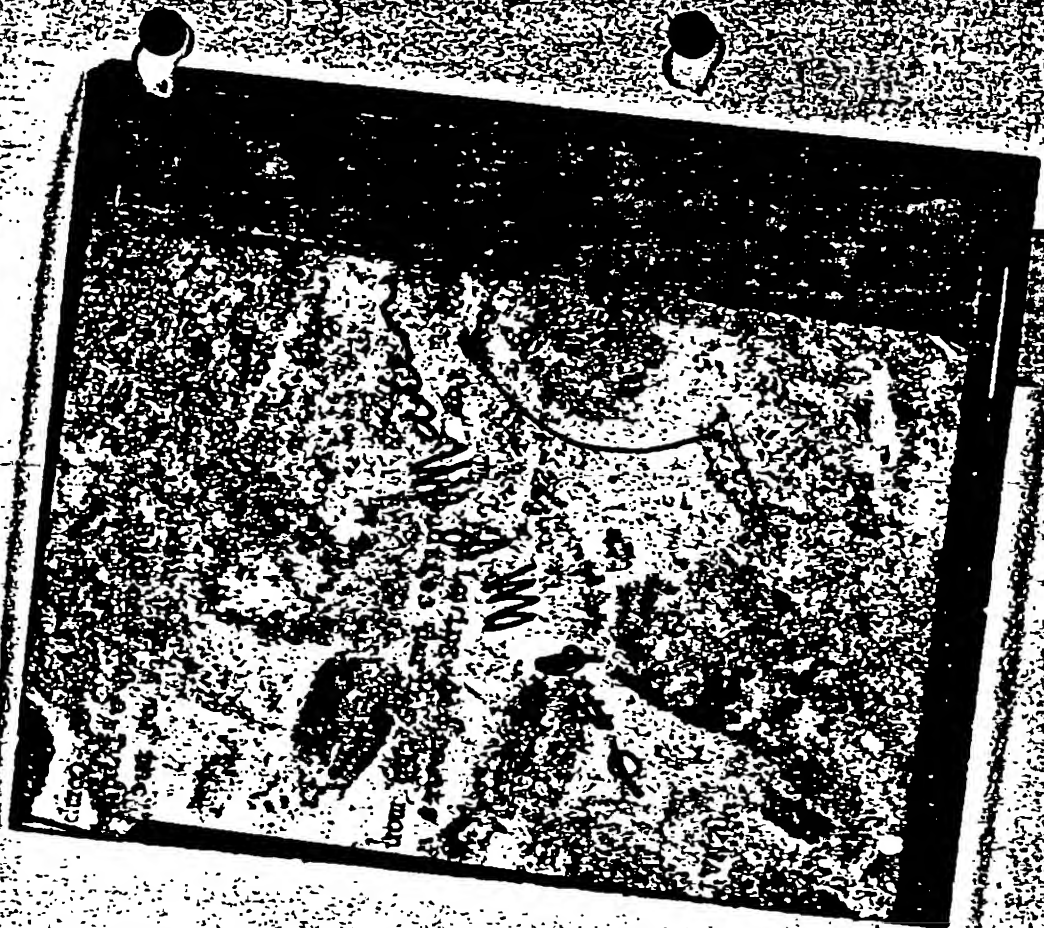
NATIONAL ADVISORY COM FOR AERONAUTICS

MM P M *air*
WASHINGTON

May 28, 1948

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Julius Rosenberg Et Al.

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No. 15

REFERRAL

Reviewed by: Amey/lewAGENCY National Aeronautics and Space Administration

No. of Pages

Actual Released

Subject and File Number	Serial	Date	Document Description	No. of Pages	Actual Released
Per 1 (HQ) 65-59312	645	1/18/55	HQ Letter to C.V.	3	3
" " " "	892	Not Dated	National Advisory Committee For Aeronautics Letter to HQ	1	1
" " " "	919	7/30/54	National Advisory Committee For Aeronautics Letter to HQ	5	5
" " " "	NR	11/18/54	HQ Letter to AEC.	3	3
" " " "	NR	11/18/54	Internal Memo	2	2
" " " "	NR	3/3/55	HQ Letter to S.F.	3	3
" " " "	937	5/11/55	S.F. report to HQ	12	12
" " " "	937	5/11/55	copy of cover sheet of above	1	1
Sidorovich (C.V.) 65-2730	231	8/29/50	C.V. memo to file	1	1

SAC, CLEVELAND (65-2730)

January 18, 1952

DIRECTOR, FBI (65-59312)

WILLIAM PERL, aka
William Potterperl
ESPIONAGE - R
PERJURY

G.I.R.

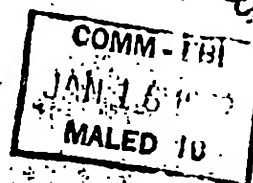
On January 7, 1952, Mr. Robert L. Bell, Security Officer, National Advisory Committee for Aeronautics, furnished to this Bureau a copy of a memorandum which he received from the Lewis Flight Propulsion Laboratory, Cleveland, Ohio, dated November 20, 1951. This memorandum sets forth the results of their further inquiry into the apparent discrepancy in the leave records as they pertain to the annual leave taken by subject Perl during the year 1944.

A photostatic copy of this memorandum is being furnished to the Cleveland Division herewith for its information and it is requested that the pertinent portions thereof be appropriately set forth in your next report submitted in this matter.

Enclosure

cc: New York (65-15387)

Attached memo turned over to Supervisor E. F. Emrich
during a discussion with Mr. Bell at NACA on 1/7/52.



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~~Security Information~~

Cleveland, Ohio
November 20, 1951

From Lewis

To: NACA Headquarters

Attention: Mr. Robert L. Bell

Subject: William Perl - investigation by FBI

Reference: NACA Headquarters letter to Lewis, 10/31/51, RLB:bam

1. The letter from the Federal Bureau of Investigation dated October 23, 1951, together with the report of Special Agent John B. O'Donoghue dated October 6, 1951, were reviewed and the following investigation was conducted in an effort to determine the reason for the discrepancy in leave taken by Perl in the year 1944.

2. Julia Green, Chief, Time and Leave Section, advised that she had reviewed her records thoroughly and that she could find no reason for the memorandum indicating that Perl had taken 28 days in 1944 instead of 22, the number revealed by the original record. It was determined that in 1944 it was the established procedure for the Division secretary to maintain the official leave card in behalf of the employee. It apparently was the responsibility of the employee to sign in and out on an appropriate sheet, in addition to initialing the official time card retained in the Division office. The sign-in sheets have been destroyed and the official time card furnished the FBI is the only remaining record insofar as leave is concerned.

3. Inasmuch as the FBI is interested in Perl's whereabouts on or about July 29, 1944, Warren Burgess, ARS, Supersonic Propulsion Division, and Alan D. Johnson, ARS, Lewis Unitary Plan Activity, were interviewed in view of the fact that these employees entered on duty in July of 1944.

4. Burgess stated that he arrived at the Laboratory on July 3, 1944 and reported directly to Perl for assignment. He stated that he worked under Perl for several months and had no recollection of Perl's absence during July or August of 1944. Burgess stated that he himself was on sick leave during the greater part of August.

5. Johnson advised that he was employed by the Laboratory on June 30, 1944 and worked under Perl until September 15, 1944, at which time he was drafted into military service. He had no recollection as to Perl's possible absence from the Laboratory during this term of his employment. He stated that he did not recall that Perl had made any trips to New York during this time.

6. It was noted that the memorandum referred to in the FBI report reflecting that Perl had overdrawn his leave by six days, was typed by

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Chambers

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Security Information

- 2 -

Ellen Cosney Manganiello, the wife of Eugene Manganiello of the Lewis Laboratory. Mrs. Manganiello stated that it was her impression that at the time of her transfer from the Duplicating Section to the Altitude Wind Tunnel in 1944, or shortly thereafter, Perl was on annual leave for approximately one week. She stated further that it was her impression that at the time Perl returned from New York in the Fall and announced to the staff that he had been married some months earlier and was bringing his wife to Cleveland, that it was necessary for him to take annual leave to search for a house or other living quarters suitable for his wife and himself. Mrs. Manganiello stated that she did not recall the memorandum itself. She advised that entries on the leave cards maintained by the Altitude Wind Tunnel during this period were mixed up, as a general rule.

7. As she recalled, Perl was very careful in checking on his leave and he always initialed his own card. Mrs. Manganiello agreed that in preparing the memorandum in question, he would have referred to the official card. It is therefore Mrs. Manganiello's belief that the absence of any entry on Perl's leave card from September 30, 1944 to January of 1945, with the exception of one hour on October 12, 1944, might well be in error. She concluded that on the basis of her recollection of Perl's return with his wife about November 1, 1944, he must have taken leave shortly thereafter in seeking living quarters, and the memorandum requesting approval for additional leave could have been based upon leave taken for this purpose.

8. Mrs. Manganiello's leave card has been examined and it appears that she was transferred to the Altitude Wind Tunnel Division Office on or about June 1, 1944.

9. John E. O'Donoghue of the Cleveland FBI office advised the writer informally that he believed that Perl brought his wife to Cleveland about November 1, 1944 and that he did experience difficulty in finding a place to live. In one particular instance, he moved into an apartment and was asked to leave three days later, according to O'Donoghue.

10. Should the Headquarters Office desire further inquiry in this matter, any request directed to the undersigned will receive immediate attention.

H. Burton Bracy
Security Officer

HRB:lh

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JEROME C. MURSAKER, SC. D. E.
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THEODORE P. WRIGHT, SC. D.

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1724 F STREET, NORTHWEST

WASHINGTON 25, D. C.

LANGLEY AERONAUTICAL LABORATORY
LANGLEY FIELD, VA.

AMES AERONAUTICAL LABORATORY
MOFFET FIELD, CALIF.

LEWIS FLIGHT RESEARCH LABORATORY
1100 BROADWAY, NEW YORK, N. Y.

TELEPHONE: LIBERTY 5-6700

Director
Federal Bureau of Investigation
Department of Justice
Washington 25, D. C.

Subject: William Perl
Your file 65-59372

Dear Sir:

Reference is made to my letters of September 29,
October 9, and November 28, 1952, concerning a further
interview of [REDACTED] (b)(7)(d)
Tentative plans for the reinterview of [REDACTED] in December,
1952, were cancelled when it developed that Mr. Ira H. Abbott,
Assistant Director for Research of the NACA, was not going
to be in England at that time and thus could not assist in
the planned reinterview. It was hoped that similar arrange-
ments for a reinterview of [REDACTED] could be made for a later
date.

It now appears quite uncertain when it will be possible
to make similar arrangements unless Mr. Abbott or another
NACA representative goes to England solely for the purpose
of assisting in a reinterview of [REDACTED] (b)(7)(d)

In view of the expense and effort that would be in-
volved, this matter has been re-examined. It does not
appear that the anticipated additional information relating
to matters within the jurisdiction of the NACA would justify
the expense and effort. On the other hand, the Director
has asked me to assure you of our complete cooperation
in rendering any desired assistance in matters within the
Bureau's jurisdiction, including sending a representative
to England if you so request.

Very truly yours,

Robert L. Bell
Security Office

53 DEC 8 1952

DEC 7 1952

EXP. P. R. 62

65-59372-892

JEROME C. MUNSACKER, SC. D.
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NATIONAL ADVISORY COMMITTEE
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1512 H STREET, NORTHWEST
WASHINGTON 25, D. C.

LANGLEY AERONAUTICAL LABORATORY
LANGLEY FIELD, VA.

AERONAUTICAL LABORATORY
MOORETT FIELD, CALIF.

LEWIS FLIGHT PROPULSION LABORATORY
2100 BROADVIEW ROAD, CLEVELAND 11, OHIO

July 30, 1954

TELEPHONE: LIBERTY 5-6700

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: William Perl
Espionage - R

Dear Sir:

Transmitted herewith, as of possible interest in the captioned case, is a photostatic copy of a report of an interview of Nemo Philip Miller, subject of your investigation under the Atomic Energy Act (Wa-84195).

Very truly yours,

Robert L. Bell
Security Officer

Enclosure

RECORDED - 3

INDEXED - 8

EX - 109

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65-59312-919

District _____
 Name _____
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THE STATE OF NEW YORK
IN SENATE
January 10, 1915

REPORT
OF THE
COMMISSIONER OF THE LAND OFFICE
FOR THE YEAR 1914

ALBANY: J.B. LIPPINCOTT & CO. PRINTERS
1915

117-1790

BY COURIER SERVICE

Date: November 12, 1954

To: Captain John A. Faters
Director of Security
Atomic Energy Commission
Room 2314, T-5 Building
16th and Constitution Avenue, N. W.
Washington 25, D. C.

From: John Edgar Hoover, Director
Federal Bureau of Investigation

Subject: UNKNOWN SUBJECT; Possible Compromise
of "Lexington Project" Report Entitled
"Nuclear Power Flight," dated September 30, 1943
ATOMIC ENERGY ACT
ESPIONAGE - R

Mr. Walter Hamilton, Staff Assistant, Joint
Congressional Committee on Atomic Energy, advised that he had
a conversation on October 12, 1954, with Richard Adams, Chief
Engineer of the Division of Dynamics, Convair Plant,
Fort Worth, Texas, relative to the aircraft nuclear pro-
pulsion program.

Adams commented to Hamilton, ^{NOT RECORDED} the need for
urgency in this work because the Soviets had the full
text of the "Lexington Report" since 1949. It is noted
that the "Lexington Report" concerned the mathematical
analysis of a nuclear power plant. Adams did not dis-
close the source of this information to Hamilton but said
that he knew it to be a fact. Hamilton got the impression
that Adams considered this information to be more or less
common knowledge in official security circles. Hamilton
also advised that he was not previously aware of this
and upon return to Washington he had a conversation with

cc - 1 - Assistant Attorney General (By Routing Slip 0-5
William F. Tompkins on same date)

cc - 65-59312

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(8)

DECLASSIFIED BY 41212
ON 3-11-78

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Nichols _____
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other staff members of the Joint Congressional Committee on Atomic Energy and was unable to determine that they were previously aware of the possible compromise of data in the "Lexington Report."

It will be recalled that investigation in the Julius Rosenberg espionage case disclosed that Julius Rosenberg advised David Greenglass that the mathematics had been worked out for the production of an atomic airplane engine. It is also noted that on page 100 of a pamphlet entitled "Soviet Atomic Espionage, April, 1951" by the Joint Congressional Committee on Atomic Energy, reference is made to the possible compromise of this program.

A letter dated August 14, 1951, captioned "Julius Rosenberg, et al, Espionage - R," furnished information regarding the possible compromise of the nuclear aircraft propulsion program. Among others receiving copies of this letter were the Director, National Advisory Committee for Aeronautics; Honorable Gordon E. Dean, Chairman, Atomic Energy Commission; Major General Joseph F. Carroll, Director of Special Investigations, The Inspector General, U. S. Air Force; and the Attorney General.

Investigation has been conducted as the result of Mr. Hamilton's information in order to determine if there existed any independent knowledge on the part of anyone showing that the Soviets had a copy of the "Lexington Report" in their possession. The investigation indicated that this was not the case but that the information received by Mr. Hamilton was the same as that obtained by this Bureau in the Julius Rosenberg case.

During 1951, the National Advisory Committee for Aeronautics advised that all copies of the "Lexington Report" which had been sent to the Lewis Flight Propulsion Laboratory in Cleveland, Ohio, had been accounted for except one and it was determined that that one copy had been returned to the Atomic Energy Commission in May, 1949, and replaced by another copy.

No further investigation predicated solely on the information furnished by Mr. Adams will be conducted. He and other individuals working in the aircraft nuclear propulsion field appeared to have no information other than that which must be presumed to be known in that field in view of the public disclosure of the possible compromise in the Rosenberg case.

cc - 1 - Director of Special Investigations
The Inspector General
Department of the Air Force
The Pentagon
Washington 25, D. C.

cc - 1 - Director BY COURIER SERVICE
National Advisory Committee for Aeronautics
1512 H Street, N. W.
Washington, D. C.
Attention: Mr. Robert L. Bell
Security Officer

L. V. Boardman

November 18,
1954

A. H. Belmont

UNKNOWN SUBJECT; Possible Compromise
of "Lexington Project" Report Entitled
"Nuclear Power Flight," dated September 30, 1948
ATOMIC ENERGY ACT
ESPIONAGE - R

This memorandum is written to recommend that it does not seem to be desirable to conduct further investigation in this case. Investigation was initiated when Walter Hamilton, Staff Assistant, Joint Congressional Committee on Atomic Energy (JCCAE) was told by [REDACTED] of Division of Dynamics, Convair Plant, Fort Worth, Texas, that the Soviets have had the full text of the Lexington Report since 1949. The Lexington Report dealt with mathematics of nuclear power flight. Hamilton was previously unaware of possible compromise. b7d

You will recall my memorandum dated 10-20-54 in this matter pointed out that in the Julius Rosenberg espionage case we gave wide dissemination to information that Rosenberg had such data. It was also noted that a prophetic published by the JCCAE quoted Rosenberg's trial testimony referring to this compromise.

Although it was felt that Hamilton's information would eventually lead back to that which we had disseminated on interview with [REDACTED] was approved as was an interview with [REDACTED] source, one [REDACTED] Aircraft Nuclear Propulsion Department, General Electric Company, Grandale, Ohio, to determine if anyone had independent information showing that the Soviets had a copy of the report. b7d

Cincinnati airtel dated 11-13-54 furnishes results of two interviews which give further indication that this concerns information obtained by us in the Rosenberg case and disseminated widely.

It appears that two different incidents, both of which were known to the Bureau, have been erroneously joined.

cc - Mr. Nichols
cc - 65-59312
EDG:ees
(6)
Attachment

117-1790

65-59312-✓
NOT RECORDED
161 NOV 23 1954

Cincinnati airtel states that the missing copy of the Lexington Report was sent to the Lewis Flight Propulsion Laboratory, Cleveland, Ohio. Bulet to New York dated 8-30-51 in the William Perl case (Bufile 55-59312) reflects that Headquarters of the National Advisory Committee for Aeronautics (NACA) advised that all copies of the report sent to the Lewis Flight Propulsion Laboratory had been accounted for except one which had been returned to AEC and replaced.

Both individuals interviewed by Cincinnati stated they felt the FBI already had the full facts in this matter, with one stating he understood it was developed in the Rosenberg case, and the other stating he remembers hearing the name William Perl in this connection.

Cincinnati asks for additional investigation by WFO. This possible compromise is well known to people in the nuclear air propulsion field. Each interview will lead us to another and give the mistaken impression that we are investigating this for the first time.

ACTION:

1) If approved, the attached airtel will be sent to the interested offices instructing that this investigation be discontinued.

2) If approved, the attached memorandum to AEC the Department, OSI, and NACA, advising that this does not appear to be a new allegation will be sent.

3
SAC, San Francisco (65-4229) (orig. & 1) March 9, 1955

Director, FBI (65-59312) ✓

**WILLIAM PERL, was.
ESPIONAGE - R
PERJURY**

There is attached herewith one Photostat each for New York and San Francisco offices of a document made available to the Bureau by the National Advisory Committee for Aeronautics. This document sets out the results of an interview of Jack Norman Nielson, Ames Aeronautical Laboratory, National Advisory Committee for Aeronautics, Moffett Field, California, regarding his association with the subject. It is noted on page 2 of this document Nielson tells of visiting Perl while both were employed at Langley Field, Virginia, and at this visit Perl had two men visiting with him. Nielson states Perl did not introduce him to these visitors and made it plain that he (Nielson) was not welcome. It is noted the report of Special Agent Wayne K. Felch made in the instant case at San Francisco March 21, 1951, reports an interview of Nielson conducted March 17, 1951, at which time Nielson did not mention this incident.

San Francisco should reinterview Nielson concerning this incident and obtain from him all information regarding Perl's visitors. If possible, an attempt should be made to fix the approximate date of this visit. Complete descriptions of the visitors should be obtained as well as all other information which Nielson can recall. New York should furnish to San Francisco photographs of Julius Rosenberg and all members of his espionage network in order that such photographs may be displayed to Nielson in an attempt to identify the persons who visited Perl.

Attachment - 1

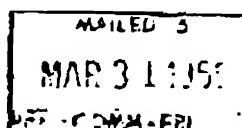
cc - 2 - New York (65-16387) (Attachments - 1)

Tolson _____
Boardman _____
Nichols _____
Belmont _____
Harbo _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Sizoo _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____

NOTE: Perl was a member of the Rosenberg espionage ring and is now serving a five-year term for perjury in connection with his denials before a Federal Grand Jury that he knew Rosenberg and Morton Sobell, convicted espionage agents.

JPL:bst
(6)

67 APR 15 1955



65-59312-1

Assistant Attorney General
William F. Tompkins
Internal Security Division
Director, FBI

March 23, 1955

JACK NORMAN NIELSEN
Aeronautical Research Scientist
Ames Aeronautical Laboratory
National Advisory Committee for Aeronautics
Moffett Field, California
SECURITY OF GOVERNMENT EMPLOYEES

Reference is made to my memorandum dated November 2, 1954, concerning captioned matter.

There is enclosed herewith one Photostat of a document made available to this Bureau by the employing agency. [This document contains the results of an interview with Jack Norman Nielsen on January 14, 1955, by the Security Officer at the Ames Aeronautical Laboratory.]

The foregoing is furnished for your additional information, further consideration, and the completion of your file.

140-5520

Enclosure

JEG:lm1
(4)

Mr. Bourgardner

Mr. Branigan

Tolson _____
Boardman _____
Nichols _____
Belmont _____
Hisco _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Sirois _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____

140-5520
MAR 23 1955
FBI

65-59312-✓

NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS

1512 H STREET, NORTHWEST
WASHINGTON 25, D. C.

41683

TELEPHONE: LIBERTY 5-8700

March 11, 1955

Director
Federal Bureau of Investigation
U. S. Department of Justice
Washington 25, D. C.

Subject: Jack Norman Nielson
Aeronautical Research Scientist
NACA Ames Aeronautical Laboratory
Moffett Field, California
Security of Government Employees

Dear Sir:

The above-captioned NACA employee was interviewed by the Security Officer of the NACA Ames Aeronautical Laboratory on January 14, 1955, and two photostatic copies of the report thereof are enclosed as of possible interest to the Bureau, particularly in view of the information contained therein concerning William Perl, former NACA employee.

Very truly yours,

Robert L. Bell
Security Officer

Enclosures - 2

165-59312-✓
NOT RECORDED
176 APR 6 1955
MAIL ROOM ORIGINAL

FEDERAL BUREAU OF INVESTIGATION

FORM No. 1
THIS CASE ORIGINATED AT NEW YORK

REPORT MADE AT SAN FRANCISCO	DATE WHEN MADE MAY 11 1955	PERIOD FOR WHICH MADE 4/18, 27/55	REPORT MADE BY FRED R. ELLEDGE elm
TITLE WILLIAM PERL, was.			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

~~CONFIDENTIAL~~

JACK N. NIELSEN advised he was a fellow employee of WILLIAM PERL at NACA Laboratory, Langley Field, Virginia, prior to NIELSEN's entering the Army in 1944. NIELSEN and PERL associated together at work and also had some social contacts after work. However, NIELSEN had no reason to suspect PERL of pro-communist or pro-Russian sympathies. NIELSEN recalls a visit to PERL's home, probably in spring of 1943. PERL at that time had two visitors whom he did not introduce to NIELSEN and who acted as if annoyed by NIELSEN's visit. NIELSEN stated identity of these men unknown to him and that he was unable to furnish description of them or other identifying data. Photographs of JULIUS ROSENBERG and members of the ROSENBERG network viewed by NIELSEN who advised he had no knowledge of PERL's associating with any of them.

AGENCY _____
 REC. BY _____ RUC -
 DATE _____
 BY _____

DECLASSIFIED ON _____
 BY _____

DETAILS:

This investigation is predicated upon information received from the National Advisory Committee for Aeronautics (NACA) on March 11, 1955, advising that JACK N. NIELSEN, an employee of NACA, had been interviewed by the Security Officer of Ames Laboratory of NACA, Moffett Field, California, on January 14, 1955.

APPROVED AND FORWARDED COPIES	SPECIAL AGENT IN CHARGE	DO NOT WRITE IN THESE SPACES
R.28 MAY 11 1955		65-59312-937
COPIES OF THIS REPORT		RECORDED 83
1 - Bureau (65-59312) (Reg.)		
3 - New York (65-15387) (Reg.)		
2 - San Francisco (65-4229)		

PROPERTY OF FBI—This report is loaned to you by the FBI, and neither it nor its contents are to be distributed outside of agency to which loaned.

63 MAY 24 1955

The results of this interview are as follows:

"NIELSEN advised that 95 percent of his association with PERL was on a professional basis. Prior to becoming employed at Langley Laboratory NIELSEN had not previously known WILLIAM PERL. WILLIAM PERL, SAM KATZOFF, and NIELSEN were about the only theoretical men in the full-scale division. NIELSEN ate lunch with PERL, and ABE SILVERSTEIN, who was then head of the full-scale division. NIELSEN recalled that the NACA personnel generally stuck together away from work and there was some social relationship between himself and WILLIAM PERL. He recalled one occasion when PERL, ROBERT SWANSON, HERBERT PASS, and himself went on a camping trip in the Blue Ridge Mountains of Virginia. NIELSEN advised that during the period of his association with PERL he never had any reason to believe or suspect that PERL was a communist, that he had communist sympathies, or was pro-Russian. NIELSEN stated that PERL went with SILVERSTEIN to Lewis Laboratory and that SILVERSTEIN had also asked NIELSEN to go to Lewis, but NIELSEN did not wish to leave Langley at that time. NIELSEN recalls that at the time he went into the military service PERL had already gone to Lewis. NIELSEN advised that he categorically can say that he did not see PERL subsequent to his, NIELSEN's, going into the military service, and that to the best of his recollection he did not see PERL subsequent to PERL's leaving Langley for Lewis. NIELSEN advised that while he was still in the military service he received at least one letter from PERL. He remembers this letter because of the technical content. PERL in this letter complimented JACK NIELSEN on a paper that NIELSEN had written on the subject of heat transfer and pressure drop in smooth cylindrical tubes. NIELSEN recalls that while he was in Germany, still in the military service, he received the Smyth report on "Atomic Energy" which had been sent to him by PERL. He recalls only receiving the book and does not recall receiving a letter with it nor a letter mentioning the book. NIELSEN feels that it is possible he may

have received more than just the one letter from PERL, although he has no recollection of any additional letters while he was in the military service. NIELSEN advised that PERL could have learned of NIELSEN's address from someone with whom NIELSEN had been corresponding, or it is possible that NIELSEN learned of PERL's marriage and wrote him a letter at the Lewis Laboratory congratulating him, thus making available his mailing address to PERL. NIELSEN stated that PERL had attended the California Institute of Technology and studied under VON KARMAN and that PERL had done the pick-and-shovel work for a paper delivered by VON KARMAN on the Wright Brothers' lecture on supersonic aerodynamics. NIELSEN does not now recall how he learned of this, but believes it happened after the war. NIELSEN indicated that he believes there was somewhat of a hero worship relationship running from PERL to VON KARMAN.

"In response to the question, NIELSEN stated that there was nothing in what PERL said or did during the time he knew PERL that aroused a question in NIELSEN's mind that PERL's activities were other than proper. In view, however, of the recent unfavorable publicity afforded PERL, NIELSEN in thinking back over his contacts with PERL recalls one incident which was unusual as far as NIELSEN was concerned. NIELSEN stated that at one of the residences where he, NIELSEN, had resided in Virginia, which he believed was located in Sherwood Park, he had rented for a while and lived there by himself and during this period had taken up the violin. ABE GELBART, who was a mathematician, came to Langley and had with him his family. NIELSEN turned this house over, which he had been renting, to GELBART and GELBART lived there for perhaps six months or so before leaving the NACA. NIELSEN believes that PERL was the next individual to live in this house, and PERL lived there all by himself. The incident which occurred and NIELSEN regarded as unusual is as follows: One night NIELSEN went to visit PERL at this house. Two other men were present in the house with PERL, obviously visitors. Normally PERL was polite, according to NIELSEN, and

this is why the incident stands out in his mind. On this occasion PERL did not introduce NIELSEN to the visitors and turned the high-fidelity phonograph outfit up to high volume. NIELSEN felt that his presence was not desired and left shortly thereafter. ~~NIELSEN did not attach any significance to the incident at the time other than to think that he was an unwanted guest at the moment.~~ NIELSEN is not now certain in his mind whether or not this was the Sherwood Park house which NIELSEN had at one time rented or whether it was a house PERL had rented in the new housing development between Hampton and Newport News. After giving this incident more consideration NIELSEN stated that he is not now sure that the incident involving the high-fidelity phonograph's being turned on to high volume occurred when the two visitors were present or whether he had visited the residence of PERL on another occasion when the two visitors were present and was made clear to him that his presence was not particularly appreciated. NIELSEN is certain that he did go to PERL's house when two visitors were present and he felt he was not welcome and departed, and he is certain that he went to PERL's house when the high-fidelity set was turned on to high volume, but he is not now certain whether these incidences occurred at the same time or whether they were two separate and distinct incidences. He thinks it is possible one of the incidences occurred at the Sherwood Park house and the other incident occurred at PERL's house in the new housing development between Hampton and Newport News.

NIELSEN advised that his connection and contact with the organization FAECT was rather limited. It was his understanding that FAECT's purpose was to improve working conditions and he knew of no political implications. As far as NIELSEN knows, the organization never acted on anything and was completely ineffective. NIELSEN stated he did not know whether the Hampton FAECT group was more or less self-governing or whether it was operated on instructions from the headquarters organization. NIELSEN stated that he himself attended only one meeting of this group and then became inactive, later going into the army.

NIELSEN recalled that his roommate, ABE COHEN (now known as ~~MAHANE~~) had been his roommate probably for six months prior to NIELSEN's going into the military service. ABE was enthusiastic about FAECT and was a member. He continually tried to interest NIELSEN in the group and persuade him to join. Finally, ABE COHEN paid the membership fee and dues for NIELSEN and NIELSEN may have signed a membership card. In any event, NIELSEN went to one open-air meeting where a man from Washington made a speech. NIELSEN stated that as far as he could recall there were no political overtones in this speech. As best as NIELSEN could recall, he finally agreed to join FAECT at COHEN's insistence when R. T. JONES became president of that group. NIELSEN does not recall ever receiving a local FAECT paper or a national paper. Because of his slight contact and connection with this group he is unable to furnish any further information concerning its activities.

NIELSEN advised that the name "Lung and Gut Society" was not familiar to him, and as far as he knew he was never a member of a group so named. He recalls that prior to ABE SILVERSTEIN's going to Lewis Laboratory he attended at least one salami party at SILVERSTEIN's and probably SILVERSTEIN, PERL, KATZOFF, and himself were present. He recalls that there was another party at SILVERSTEIN's at which two girls from the editorial office were present. There were also occasional beer parties that he can recall when the whole section or branch attended, and he recalls that after SILVERSTEIN left he had at least one beer party at his, NIELSEN's, place and probably attended others. NIELSEN advised that he has no recollection of particular cliques existing among the Langley employees and that those parties or get-togethers which he attended were rather well represented from the section. NIELSEN advises that he himself did not belong to any discussion group which met in private homes.

NIELSEN stated that ALAN HARTEN GREEN was at Caltech during the same period that NIELSEN was in attendance at Caltech. He stated he only knew GREEN casually and that GREEN had approached NIELSEN

with a view of getting a recommendation to ROBERT SWANSON who was then at Point Mugu. NIELSEN advised that he does not know if GREEN used him as a reference at any other time. NIELSEN stated that he did know him only very casually and he thought ~~it was strange that GREEN should ask him to recommend him for a job.~~ NIELSEN did not know whether GREEN obtained the position at Point Mugu.

"NIELSEN stated that the only person he ever suspected of being a communist of his own knowledge was a fellow student at the University of California who had shown NIELSEN a book on dialectical materialism and had tried to convince NIELSEN that it was true. NIELSEN recalls this student's name as ~~VAN EVERN~~ (ph).

"NIELSEN stated that he himself considers communism an evil and that because of communism it is practically inevitable that a future war will occur which the United States must win. He stated that it is his belief that any philosophy which subverts the individual is evil and that communism certainly falls in this category. NIELSEN believes in all freedom compatible with law and order. He stated that as far as he was concerned communism, totalitarianism, and fascims were the same 'damn' thing under different names, all representing a lust for power, with the result that people were trampled upon. NIELSEN stated that he feels the United States 'missed the boat' in Indo-China by not going in and using force to prevent the fall of the French fortress in Indo-China. NIELSEN stated that we must now do something to prevent Indo-China from going communist in its elections.

"NIELSEN indicated that his employment with Mann Manufacturing Company in Berkeley in 1940 was a summer job and that Mann Manufacturing Company sold out to a company which he believes was known as the Automatic Machine Products Company in the early 1940's. He stated that Mann Manufacturing Company made piston pins and valve stems and that he himself had been a machinist and later had done drafting.

"NIELSEN stated that he did correct papers possibly once a week or so while he was at Caltech and was employed as a graduate student. His failure to list this employment on the PSQ was an oversight.

"NIELSEN indicated that he and his wife had married in the Catholic church in Germany without the permission of his commanding officer. At the time he was endeavoring to bring his wife back to the United States the army had control over exit visas. In a situation where the marriage had occurred without the proper permission there was considerable time lag in obtaining exit visas. Therefore, his wife left Germany as a prospective bride because that was the quickest way he could get her to the United States. This is the reason that they were remarried in San Jose.

"NIELSEN was asked whom he regarded to be his closest friends while at Langley. NIELSEN stated that he probably did not make many close friends, but that his closest friend at Langley certainly was JACK STALDER. NIELSEN had known JACK STALDER during their junior college days and although both were interviewed for a position with the NACA at the same time STALDER went to Langley prior to NIELSEN, and STALDER's presence at Langley was one of the prime reasons NIELSEN chose to go to Langley. JACK STALDER is still one of NIELSEN's two or three closest friends. NIELSEN stated that possibly a year prior to NIELSEN's going into the military service JACK STALDER had transferred to the Lewis Laboratory. Prior to STALDER's going to the Lewis Laboratory most of NIELSEN's social activity and activities away from the laboratory at Langley were with Mr. and Mrs. STALDER. NIELSEN stated that probably his best acquaintances at Langley were ROBERT SWANSON, ABE COHEN, SAM KATZOFF, and EUGENE MIGOTSKY. He stated that SWANSON lived in a trailer down near the NACA tennis courts and that he played tennis and went horseback riding with SWANSON, and that athletic activities such as this represented his main contact with SWANSON away from the laboratory. He lived with ABE COHEN for some six months and thereby became a good acquaintance. SAM KATZOFF

was NIELSEN's direct supervisor and, although their activities away from the laboratory were somewhat limited, nevertheless NIELSEN regarded him as a good acquaintance. EUGENE MOGOTSKY was assigned to the same section.

"I have read the results of the interview consisting of four and one-half pages as prepared by the Ames Security Officer, which I find to be true and correct.

signed "JACK N. NIELSEN e
Feb. 17, 1955"

The FAECT is cited as a Communist front organization in the Fourth Report of the California Senate Fact Finding Committee on Un-American Activities in 1948.

AT MCFFETT FIELD, CALIFORNIA

JACK N. NIELSEN was interviewed by SA FRED R. ELLEDGE on April 27, 1955. At this time NIELSEN advised that with respect to the interview and statement he had given to the Security Officer at Ames Laboratory, NACA, he had recalled the incident of visiting PERL's home because of reading articles regarding PERL recently. NIELSEN stated that he wanted to emphasize at the outset that his feeling that PERL's visitors resented his presence was based more upon his appraisal of the situation and the actions of these visitors rather than any specific statement made by PERL. NIELSEN stated that normally PERL was rather friendly and cordial toward him; and it was his recollection that upon the occasion of this visit to PERL, the latter was rather cool toward him as evidenced by the fact that he did not introduce him to his two visitors. NIELSEN stated that he recalled the previous interview conducted by SAs WAYNE K. WELCH and EUGENE A. BOGUSLAV on March 17, 1951, and advised that he had made no mention of this particular visit to PERL's apartment during this interview since the matter had entirely left his mind. He said that it was only upon later reflection and as a result of reading the articles concerning PERL that he had recalled the incident at all.

With respect to the place where he visited PERL, NIELSEN recalled that it was at a time when PERL was residing in Sherwood Park, Hampton, Virginia. NIELSEN stated that he was unable to recall the particular street, but it was his recollection that it was house number eleven; and he recalled

SF 65-4229
FRE/elm

at this time another NACA employee resided directly across the street from the PERL residence. Also, that EUGENE GURYANSKI, another NACA employee, resided on the northeast corner of the next street above the PERL residence. With respect to this particular residence, NIELSEN advised that he, NIELSEN, had resided in this same home for approximately the first six months of 1942. NIELSEN then moved and ABE GELBART, a married employee of NACA, Langley Field, Virginia, then moved into this house. GELBART resided in this same house from six months to a year, at which time WILLIAM PERL then moved to this same address. NIELSEN stated that he recalled that PERL moved from this house in Sherwood Park to a new housing project located between Hampton, Virginia, and Newport News, Virginia, after leaving the house in Sherwood Park and before PERL left for Lewis Laboratory, Cleveland, Ohio.

NIELSEN stated that on the behalf of the above facts, it was his recollection that the visit in question to the PERL residence occurred probably in the spring of 1943. He based this recollection upon the fact that as he entered the PERL residence he noticed one of the visitors was wearing his overcoat even in the apartment. He stated that this fixed the time in his mind as being either in the spring or the fall, and it was his recollection that this incident took place in the spring of 1943. However, he stated it was possible that it could have been in the fall of 1943. With respect to the visit being in the fall of 1943, NIELSEN pointed out that PERL left for Lewis Laboratory in December, 1943; and since he had occupied the apartment in the housing project after he left the residence in Sherwood Park, he felt that this event took place in the spring of 1943.

With respect to the identity of PERL's two visitors, NIELSEN again pointed out that at the time of his visit to PERL's home, the latter made no attempt to introduce NIELSEN to the visitors. NIELSEN advised that his visit to PERL was impromptu in that no appointment had been made and his visit to PERL was unexpected insofar as PERL was concerned. Upon his arrival at the PERL residence, the two visitors in question were already there, and NIELSEN stated emphatically that he had never to his knowledge seen either of these visitors prior to this time, and he had never seen them subsequent to this time. NIELSEN stated that it was his recollection

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FRE/elm

that these two visitors were approximately the same age as PERL and he judged them as probably of the same educational background. NIELSEN stated that beyond this he could furnish no description of these men since they had faded almost entirely from his recollection and also due to the fact that he was only present with them from 15 to 30 minutes. NIELSEN stated in conclusion that his only recollection of these visitors was that they impressed him as being "New York Jews."

NIELSEN stated that during his association with PERL he had no recollection of the latter at any time associating with persons other than NACA personnel. He stated that the employees of NACA associated together socially as well as in connection with their employment.

With respect to any girl friends that PERL might have had, NIELSEN stated that he knew that PERL did associate with one LOIS EVANS, head of the Computing Section, Full Scale Wind Tunnel, at Langley Field, Virginia. To NIELSEN's recollection, EVANS was the only girl friend PERL had.

Photographs of the following members of the ROSENBERG apparatus were exhibited to NIELSEN:

JULIUS ROSENBERG
MAX ELL FINESTONE
WILLIAM DANZIGER
JOEL BARR
ALFRED SARANT
JAMES WEINSTEIN
MIKE SIDOROVICH
MORTON SOBELL
STANLEY ROBERT RICH
HARRY GOLD
WILLIAM PERL
DAVID GREENGLASS
WELDON BRUCE DAYTON
FRED JOSEPH KITTY

With respect to the above individuals, NIELSEN advised that the only individual he recognized from the above group was WILLIAM PERL and that he had no recollection of having seen PERL associate with any of the other individuals.

~~CONFIDENTIAL~~

SF 65-4229
FRE/elm

Photographs of the following female members of the ROSENBERG apparatus were exhibited to NIELSEN:

VIVIAN GLASSMAN
ANNETTE CHAIT FINESTONE
LOUISE SARANT
ANN SIDOROVICH
HENRIETTA BOYD SAVIDGE. PERL
ETHEL ROSENBERG
RUTH GREENGLASS
HELEN SOBELL

With respect to the above individuals, NIELSEN stated that he had no recollection of any of the above individuals associating with PERL. He again emphasized the fact that he recalled PERL associating only with LOIS EVANS during the time of NIELSEN's association with PERL at Langley Field, Virginia.

NIELSEN stated that he could think of nothing further to add to what he had already stated regarding the above incident of the visit to PERL's home. He again emphasized that he had nothing specific upon which to base his conclusion that he was an unwanted visitor at this time aside from the observations previously made regarding the attitude of PERL and the visitors toward him. He stated that PERL had never mentioned this matter to him subsequent to this time and that he likewise had made no mention of the incident to PERL.

- RUC -

SF 65-4229
FRE/elm

REFERENCE

Bureau letter to San Francisco dated 3/31/55.

ADMINISTRATIVE PAGE

FEDERAL BUREAU OF INVESTIGATION

FORM NO. 1
THIS CASE ORIGINATED AT NEW YORK

REPORT MADE AT SAN FRANCISCO	DATE WHEN MADE 4/18, 27/55	PERIOD FOR WHICH MADE 4/18, 27/55	REPORT MADE BY FRED R. ELLEDGE elm
TITLE WILLIAM PERL, was.			CHARACTER OF CASE ESPIONAGE - R PERJURY

SYNOPSIS OF FACTS:

~~CONFIDENTIAL~~

JACK N. NIELSEN advised he was a fellow employee of WILLIAM PERL at NACA Laboratory, Langley Field, Virginia, prior to NIELSEN's entering the Army in 1944. NIELSEN and PERL associated together at work and also had some social contacts after work. However, NIELSEN had no reason to suspect PERL of pro-communist or pro-Russian sympathies. NIELSEN recalls a visit to PERL's home, probably in spring of 1943. PERL at that time had two visitors whom he did not introduce to NIELSEN and who acted as if annoyed by NIELSEN's visit. NIELSEN stated identity of these men unknown to him and that he was unable to furnish description of them or other identifying data. Photographs of JULIUS ROSENBERG and members of the ROSENBERG network viewed by NIELSEN who advised he had no knowledge of PERL's associating with any of them.

- RUC -

APPROPRIATE AGENCIES
ADVISED BY ROUTING
SLIP(S) *delivered*
DATE *4/27/55*

DETAILS:

This investigation is predicated upon information received from the National Advisory Committee for Aeronautics (NACA) on March 11, 1955, advising that JACK N. NIELSEN, an employee of NACA, had been interviewed by the Security Officer of Ames Laboratory of NACA, Moffett Field, California, on January 14, 1955.

~~CONFIDENTIAL~~

APPROVED AND FORWARDED:	SPECIAL AGENT IN CHARGE	DO NOT WRITE IN THESE SPACES	
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Cleveland, Ohio
August 29, 1950

MEMO, SAC:

RE: WILLIAM PERL, aka
ESPIONAGE - R

Mr. G. W. GIBBONS, Personnel Manager, Lewis Flight Propulsion Committee, NACA, Cleveland, Ohio on August 11, 1950, made the following information available from the personnel records of that office on the following:

ROBERT RESNICK

WILLIAM PERL was the Section Head over RESNICK in 1945. RESNICK had attended John Hopkins University and was an instructor there from February 1943 to April 1944, this being in the Physics Department. As of March 13, 1945 MAURICE TUCKER, then Supervisor of RESNICK, indicated that he wanted to retain RESNICK, who was then working on research on trans-sonic and super-sonic flight problems.

Mr. GIBBONS confidentially advised that inquiry concerning the loyalty of RESNICK was being conducted by the Washington Office of NACA as of August 21, 1945 and that in view of this, ABE SILVERSTEIN discussed with RESNICK the charges that RESNICK was a Communist and that after this discussion, SILVERSTEIN recommended that there be no action to separate RESNICK from his present work.

ABE SILVERSTEIN

SILVERSTEIN was in Super-sonic Aero-dynamics and had been recommended by MAURICE TUCKER. He had attended two years at the University of Michigan, receiving an AB there in 1941. He also attended Duke University for one year. SILVERSTEIN resigned from NACA September 6, 1946, going to the University of Michigan.

RALPH A. SPITZER

SPITZER came from Langley Field, NACA Laboratory on October 21, 1942 as an Assistant Physical Chemist. SPITZER was born in New York, New York, February 9, 1916. While at Langley Field, Virginia, SPITZER lived at 22 Shelby Avenue, Langley View, Hampton, Virginia. He had a PhD from Cal. Tech. and quit the service of NACA on November 27, 1943, stating that he would be of more use to the war effort elsewhere. He went to Woods Hole, Mass. with the General Graphic Institute.

DAVID A. WIBLE
SA

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